Water Quality Certifications for Existing Hydropower Dams

Guidance Manual

Comments and Responses

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Commenters

Directory of Issues

Comments & Responses

CRITFC

1. Comment:

Pg 4. Because the PCHB recognized the uniqueness of the Chelan River, the project should not be used as a template for future 401 Certifications. Furthermore, the Chelan 401 Certification should also not be used as an example for the guidance. The purpose of 401 Certifications is to certify that a project provides reasonable assurance of compliance with water quality standards. The Chelan 401 Certification did not meet that standard. Through its adaptive management plan, the Certification made excessive use of "use attainability analysis" (UAA) as a backdoor exit to meeting water quality standards. This is unacceptable to us, and we hope that future 401 Certifications do not mirror this language.

Response:

The Chelan 401 water quality certification provided for a compliance plan using adaptive management to meet water quality standards over the compliance period. It did not excuse non-compliance but recognized that a standards change request would be considered at the end of a compliance period, if justified.

Ecology will base future water quality certifications for dams on the 2003 water quality standards' (173-201A) compliance schedule language. Although compliance schedules are in the RCW 90.48, the new standards provide clarity. These standards include a compliance schedules for dams which allows for ten year compliance schedules with the potential to use water quality tools (including attainment analysis) found in part four of the standards to establish alternative criteria, but only when all feasible improvements have been made.

The UAA guidance is currently under development and will, when finished, be reflected into this guidance. Ecology is providing opportunities for public input. We suggest that you remain involved with this. More information about Washington UAA guidance can be found on our website: http://www.ecy.wa.gov/programs/wq/swqs/uaa.html.

CRITFC

2. Comment:

The draft guidance states that Ecology wants the 401 Certification process to be transparent to the public and particularly stakeholders in a FERC relicensing process. The 401 Certification process needs to be open to tribal and public participation, and drafts of 401 Certifications and their conditions should be made available to all potential stakeholders, not just the applicant. When utilities meet with Ecology, other parties should be notified and allowed to participate. All contacts with applicants and the initial development of a work plan should include a process by which a public record is kept or other public involvement is provided as appropriate. In the end, keeping tribes and the public informed in the development of the 401 Certification will save all parties the extra time and resources that would be expended in litigation.

We recommend that the final guidance contains the following important process modifications to assist with process transparency in reference to Page 10, Ecology's Process:

- After the public notice that the 401 application has been received, Ecology should work with the applicant and other stakeholders to create draft 401 Certification conditions. Other stakeholders can render meaningful contributions to the construction of 401 conditions.

- After the NEPA process has concluded but before the final 401 Certification is issued, Ecology should issue a draft 401 Certification for public review and comment and hold a public hearing on the draft 401 Certification. The review period should last 45 days.

These modifications will ensure that the public and, in particular, important stakeholders, such as tribes, have adequate ability to provide input on the 401 Certification deliberations. These modifications will result in a more defensible and scientifically credible final 401 certification.

Response:
The guidance generally addresses your concerns about being involved in the development of water quality certification conditions. We agree that the guidance can contain some more detail. The following language has been added in Chapter 2, "Electronic, hard copy and verbal communication with applicants including the initial development of a work plan should include a process by which a public record is kept and other public involvement is provided as appropriate."

Ecology is planning to provide opportunity for review of the draft conditions of the 401 water quality certifications.

CRITFC
3. Comment:
Ecology should participate in the FERC licensing process in order to make sure that water quality decisions in settlement agreements do not conflict with 401 Certifications. Ecology, however, should always retain its 401 Certification authority separate from FERC and the FERC process. Furthermore, terms that relate to water quality in a settlement agreement should be consistent with conditions in an Ecology-issued 401 Certification, not the other way around. It is the responsibility of the FERC parties to make certain of this consistency.

Response:
We agree. Ecology staff will be part of the appropriate FERC-process negotiations as agency priorities dictate.

The best approach is for Ecology to participate in the appropriate negotiations from the beginning; and Ecology will, if possible. While participation in the fishery and other

resource negotiations would assure everyone involved that limiting water quality concerns would be part of the deliberations, Ecology may not participate in all of these meetings. More often, Ecology would consider participating in targeted meeting that address water quality and flow issues. Ecology would encourage applicants to form issue groups to include both water quality and flow issues in one meeting. The decision to participate is made by the regional manager who will sign the water quality certification. This is usually, but not always, the water quality regional section manager.

Ecology will continue to issue 401 water quality certifications as administrative orders under state authority.

CRITFC

4. Comment:

The purpose of a 401 Certification is to protect water quality (pg. 1) and to certify that there is reasonable assurance that a project can meet state water quality standards. (pg. 19). This is inherently at cross-purposes with a use attainability analysis (UAA), which is focused on altering the use designations of water bodies so that water quality criteria can be changed —generally downgraded. A 401 Certification cannot, on the one hand, certify that a project provides reasonable assurance of compliance with water quality standards while, on the other hand, promote a UAA as a way out of compliance with current water quality standards.

We understand that in some situations, immediate compliance with water quality standards (numeric and/or narrative criteria) may not be realistic. In these situations, we support the use of adaptive management plans/compliance schedules as means to get to compliance. These plans, however, should not be means by which an applicant can delay complying with water quality criteria or delay going through the lengthy and costly UAA process.

While applicants deserve to know the options available to them in water quality law (such as UAA, site-specific criteria or variances), a UAA, per se, has no business in a 401 Certification, even paired with a compliance schedule/adaptive management plan. Moreover, discussion of such should not constitute a large part of this guidance, as it does so now. Guidance users should be directed to the separate UAA Guidance currently being developed by Ecology.

Response:

We think that the guidance contains the appropriate language in Chapter 1 on UAAs. The paragraph (on page six) refers the reader to the UAA guidance that is presently being developed. The applicant will need to show that they have performed all reasonable and feasible improvements before Ecology will consider any water quality standards tool (including UAAs) to revise standards (either more or less stringent).

The UAA guidance is currently under development and will, when finished, be reflected into this guidance. Ecology is providing opportunities for public input. We suggest that

you remain involved with this. More information about Washington UAA guidance can be found on our website: http://www.ecy.wa.gov/programs/wq/swqs/uaa.html.

CRITFC

5. Comment:

We are very uncomfortable with the current system of PUD funding for agency (Ecology and/or WDFW) staff. As an alternative and consistent with other permits that Ecology issues, Ecology should require applicant/owner to pay for department resources necessary to conduct the 401 process, and manage post certification monitoring/evaluation for the remainder of the new license. Hydropower project owners have adequate means to provide this funding. If the funding goes directly to the department, possible conflict of interest issues are avoided as arise through current interagency agreements or cost reimbursement agreements for personal services.

Response:

Ecology needs to be very clear if further interagency agreements through RCW 39.34 are made: the applicant funding the position does not base their funding of the position on actions favorable to the utility.

Ecology would like to be able to obtain funding from the applicants for the water quality certification process. This is how the NPDES permit process is funded for overseeing sound disposal and treatment of industrial and municipal wastes. However, a state law would be needed to do this and we presently have none. Ecology has pursued recompense through FERC in much the same way that FERC bills the applicant for certain federal involvement in the license process, but we have not succeeded. FERC would have to approve of a mechanism to recompense states.

CRITFC

6. Comment:

Pg. 1. *"When water quality certification conditions are given to FERC, they automatically become conditions in the final license.* "Pg. *9: "It is also important to make sure 401 conditions are consistent with settlement agreements'* (compare with the following slide from the public presentation 10/26/04) *"Water quality Certifications become FERC license conditions. Arriving at certification conditions can differ from the negotiated process... Conditions may differ from settlement conditions.*' While these strive to say the same thing, they are different in their perspectives and application. The Guidance needs to be consistent and Ecology needs to assert its authority, which is separate from, and arguably greater than, terms in a settlement agreement made pursuant to a FERC process.

Response:

We think that the guidance is as clear as it can be given the complexities of the FERC licensing process. Responsibility rests not only with Ecology, but also with participants in the collaborative licensing negotiations. These participants should take responsibility to provide information and inform Ecology of potential conflicts early in the process. Ultimately, the strength of the agreements may rest on compatibility with water quality

standards. At the same time, Ecology will retain its authority to write conditions that differ from these agreements if necessary. Ecology encourages parties to strive for agreements that will make this unnecessary.

CRITFC

7. Comment:

Pg. 2. The word, "tribes" should be included in the section relating to benefits from participating in the licensing process.

Response:

By "resource agencies", Ecology means governmental resource agencies including tribal. The sentence has been changed to read, "In practice however, utilities, Ecology, other state, tribal, federal, and other resource agencies can benefit from participating in the licensing process."

CRITFC

8. Comment:

Pg. 2 (& pp. 7, 13, 14, 16). When utilities meet with Ecology, can Ecology notify tribes and/or the public as well? Are tribes part of the process?

Response:

Ecology will identify interested parties through the FERC service list and through personal communication. Information from meetings that Ecology has with applicants is available for anyone. In practice, we will attempt to notify those parties who have stated an interest, about upcoming meetings. We will make determinations about what meetings might be useful.

Ecology is planning to provide opportunity for review of the draft conditions of the 401 water quality certifications.

CRITFC

9. Comment:

Pg. 3. We fully support Ecology's position with regard to making 401 Certifications enforceable administrative orders. We understand that other jurisdictions follow the same direction and believe it is an important way for the state of Washington (through Ecology) to retain its authority over waters of the state. With regard to the reference here, we recommend that the Guidance explain and define "enforceable" administrative order and describe what it means to participants.

Response:

We think that the language in the guidance is sufficient. The reader is shown through a direct link, to the language in the law explaining Ecology's enforcement authorities.

CRITFC

10. Comment:

Pg. 4. *"Ecology adopted language recognizing that human structural changes that cannot be effectively remedied ... may be used to determine the highest attainable uses for that water body when a water body does not meet its designated uses ... then the highest attainable uses may become an alternative target for that water body.* " What is missing here is the emphasis on "existing" uses. These are different from designated uses, and these must *always* be protected. Existing uses are those uses that exist in the water body *on or after 1975,* even if that use was reinstated and/or is a seasonal use (as opposed to a sporadic use). The guidance does a better job of delineating this difference in the Definitions section (pg. *54),* so you should transfer that language from there to this page to clarify this paragraph.

Response:

The paragraph has been deleted based also on other concerns that the language was repetitive and confusing.

CRITFC

11. Comment:

Pgs. 4-5. A "no net effect" standard for compliance with water quality standards should be adopted. The applicant should be able to meet the standards; otherwise Ecology should not certify. Achieving the "highest attainable level of improvement" may not be sufficient to protect the beneficial use — particularly a fisheries use.

Response:

If designated uses cannot be met after the steps under the water quality standard's *Compliance Schedules for Dams* have been followed, provisions are found in the water quality standards that may the standards to be adjusted. Adopting a 'no net effect' standard would require a rule revision by Ecology and is beyond the scope of this guidance.

CRITFC

12. Comment:

Pg. 17. We recommend that each 401 Certification contain a decision tree outlining the specific actions that are going to be implemented to achieve the standards. To insure that steady, meaningful progress is made to meeting the standards, each Certification should qualitatively and quantitatively outline the process in the decision tree with firm schedules of compliance.

Response:

Language has been added to Chapter 2, *What to expect in a 401 certification,* under fixing known water quality problems, "The final language in the certification conditions must be clear with firm dates when specific improvement activities must take place. A decision tree, time graph or matrix can be helpful to include."

CRITFC

13. Comment:

Pgs. 4-5. Ecology should incorporate the best, state-of-the-art scientific information when evaluating plan compliance.

Response:

Agreed.

CRITFC

14. Comment:

Pgs. 4-5. Ecology should reserve the right to withdraw the 401 Certification if the owner fails to meet compliance plan schedules and/or requirements.

Response:

Withdrawing a 401 water quality certification once the conditions have been incorporated into the federal license would be of limited usefulness because the conditions will already be part of the FERC-administered license. Better, would be for Ecology to include conditions in the certification that would be invoked if the dam owner failed to meet the targets or requirements of the certification.

CRITFC

15. Comment:

Pgs. 4-5. The owner should implement new technologies to achieve compliance with the standards. "Reasonable and feasible" are ambiguous terms that need definition and careful consideration if they are to be used in this guidance document; otherwise they should be omitted. As they stand now in the document, they provide an owner with a convenient opportunity to avoid meeting standards for the entire *30-50* years of a new hydro license, depending on what the owner and Ecology determine is "reasonable and feasible." In the end, it is possible that the beneficial use may not be protected for an entire license term.

Response:

Applicants will be expected to pursue and implement new technologies toward achieving compliance with the water quality standards. The terms, "reasonable and feasible" that are part of Ecology's 2003 water quality standards, are somewhat ambiguous. Ecology is defining these terms partially through developing Use Attainability guidance that will contain an economic analysis guidance portion. Ecology is currently working with EPA Region 10 to specifically address this issue. Tribes and others will have the opportunity to provide input into this.

CRITFC

16. Comment:

Pgs. 4-5. Structural changes for compliance of water quality standards should facilitate fish protection and passage. For example, a structure to abate total dissolved gas, such as a top spill sluiceway, should have gas abatement characteristics. It is important that standards be met during the majority of the fish migration and at all other times of the

year when smaller numbers of anadromous fish are migrating and holding in the vicinity of dams and would be impacted by high levels of total dissolved gas. Resident fish are a beneficial use that are impacted by dams all year around.

Response:
Agreed. Some solutions that improve fish survival may have to be weighed against negative environmental effects.

CRITFC
17. Comment:
Pg. 6. Water quality offsets were not apparently in the 1997 standards upon which this guidance is founded.

Response:
The mechanisms of when and how water quality offsets are undertaken were not explicitly defined in the 1997 standards. Nevertheless, they are still allowed under that rule.

CRITFC
18. Comment:
Pg. 10. The public participation box allows only for notice of the application. Presumably much deliberation, discussion, data collection and research has already taken place without the public's involvement. Also, where and when can the tribes get involved (outside of the FERC process)?

Response:
Ecology is planning to provide opportunity for review of the draft conditions of the 401 water quality certifications.

We hope that most of the data collection and research will be identified through the FERC process, especially early involvement with the ILP process. If not, Ecology relies on discussion with the utility, fish agencies (including tribal fish agencies), and others to identify key data gaps.

CRITFC
19. Comment:
Pgs. 11-12. Initial consultation phase—Ecology should hold a meeting with the applicant and stakeholders early in the settlement process regarding the relationship of the settlement actions and actions in the 401.

Response:
Agreed. Another bullet has been added in Chapter 2 under the initial workplan to cover, "How the parties will address the relationship of negotiated agreements to 401 conditions."

CRITFC
20. Comment:

Pg. 14. Ecology should make a special effort to engage all stakeholders in a 401 process as well as the applicant as early in the process as possible. This will encourage transparency.

Response:
Agreed. Future license processes under the ILP will facilitate Ecology's early involvement with the utilities and the stakeholders.

CRITFC
21. Comment:
Pg. 15. Ecology and the applicant should engage with upstream and downstream water users in a 401 process and take a river reach perspective into the process. TMDLs may be involved. For example, in the Mid-Columbia reach, possibilities of enhancing/modifying the Hourly Coordination Agreement by upstream dams could assist in a downstream dam meeting compliance for total dissolved gas.

Response:
Agreed. However, Ecology cannot expect an applicant to comply with circumstances beyond their control or influence.

CRITFC
22. Comment:
Pg. 16. The time allowed for written comments to the application should be extended to 45 days instead of 20 days. These are complex projects necessitating additional comment time as stated in the draft guidance on page 16. Ecology should require that the applicant publish a legal notice in local newspapers. Ecology should mail a copy of the application to all tribes affected by the 401 Certification.

Response:
Ecology will consider extensions if asked, with the understanding that other opportunities exist to affect the certification decisions and conditions during the one-year between receiving the application (when the 20-day public comment period begins) and the certification or denial.

Ecology's uses its discretion on whether or not to ask the applicant to publish a legal notice in a local newspaper. In practice, we usually do so. We usually find other methods of notification to be much more effective.
Ecology cannot determine which tribe will be affected. For instance, a tribe in New York State may be interested in the application because of concerns of precedent, not substance. So we will notify everyone on the FERC service list and rely on the tribe to ask Ecology for the application.

CRITFC
23. Comment:
Pg. 19. If Ecology can decide to certify a hydropower project only if there is "reasonable assurance" that the project can meet water quality standards, how does the ambiguous "reasonable and feasible" implementation meet the test of "reasonable assurance?" Are

the numerical and narrative standards assured of being met, and if so under what timeframe as to not impair the beneficial use (*i.e.*, fish productivity). The final guidance document needs to clearly define and provide a logical path of the relationship between these concepts.

Response:
The terms "reasonable assurance" and "reasonable and feasible" provide a pathway for utilities to determine which improvement measures to undertake and how far to go with them. The applicant should examine all known alternative improvement measures, select, and pursue improvement measures in order of which one gives the most improvement and costs the least. Then the applicant will evaluate each water quality improvement measure for effectiveness. If water quality standards are still not met, the applicant would move on to the next most effective measure (considering costs and water-quality improvements) and so forth. A point may be reached when the small improvement and/or costs could outweigh the benefits of continuing to pursue improvement measures. At this time, a water quality standards tool may be used. This concept is being further developed through the UAA guidance.

CRITFC
24. Comment:
Pg. 19. Add the following to the list:

- What is the applicable state-of-the-art science/technology for meeting narrative and numerical standards?
- Rigorous hypothesis formation and testing should occur in this phase *(see* McAllister and Peterman 1992; Parma and Deriso 1992; Deriso et al. 2001; Marmorek et al. 2004).
- The process and results should be subjected to independent scientific peer-review by an outside group of experts chosen by the applicant and stakeholders with a final determination by Ecology. This process should be a component and funded by the applicant's funding of the 401 permit as mentioned in the above comments

Response:
We think that the "guidance for applicable state of the art science" is covered under 'identification of potential solutions'. Ecology will engage the services of experts within Ecology (our EAP program) when needed. Informally, Ecology will meet with interested persons as we review information and seriously consider outside perspectives about the validity of data and assumptions and hypotheses used.

CRITFC
25. Comment:
Pg. 20. We strongly concur with the statement that the applicant should examine uses that would be available without the project impacts. A full scenario should be developed as a case study to which comparisons to scenarios with the hydroproject in place can be made.

Response:
The way that federal and state water quality standards regulations are designed, Ecology will ensure that all existing uses, and all attainable uses designated for the water body in the state standards, will be protected under the conditions of the certification.

CRITFC
26. Comment:
Pg. 24. Ecology indicates that dams and the reservoirs created are not natural systems, so it cannot assume that any impact that this system creates either above or downstream is natural. The highest attainable water quality in the reservoir would then be the criterion. Ecology claims that the discharge from the reservoir would not be considered a natural condition or contribute to deviations from water quality standards. However, it is also claimed that "*the certification should focus on meeting the water quality criteria downstream of the dam* " although this is contradicted by the statement that downstream conditions caused by the reservoir cannot be considered to contribute to the problem.

The highest attainable water quality condition, given the presence of an unnatural source of water quality degradation, is generally considered to be a technology-based consideration. What is the highest attainable water quality now is a matter of available technology and costs that the public is willing to bear (either the cost of implementing the technological remedies or the public health or fish and wildlife damage costs). The attainable water quality condition now is likely to be different from what is possible in the next 10 years. This is one reason why revision of standards and the required procedures to achieve the standards is needed.

The biological requirements for water quality parameters to meet the needs of fish, wildlife, and public health may be understood more clearly through time, but the biological responses to various specific water quality conditions would remain relatively unchanged. If certain beneficial uses (*e.g*., coldwater fisheries) are to be maintained at all or at a high level of functioning, it is simply a fact that this imposes a requirement for achieving at least a minimal level of water quality. Many types of developments in our watersheds and along our streams would be considered an unnatural addition to the environment.

Hydropower systems and reservoirs are not the only facilities contributing to water quality degradation; irrigation systems, sewage treatment plants, chemical plants, and many other kinds of facilities considered important to modem life are not considered exempt from regulation simply because they can impair natural conditions. For this reason, Ecology needs to realize that alternatives to these facilities may be considered when the damage to fish, wildlife, and public health are too great and the deviation from natural is too great. Also, what is considered to be the highest attainable water quality is dependent on changing technology and desire to address the issues. Deliberately setting lower criteria so as to exempt a polluting facility or to essentially make it part of the pollution background level unfairly short-circuits this feedback loop by burying the information on the cumulative level of deviation of water quality from natural. This

process of obscuring what the natural background actually is also makes it less likely that the public would ever have to consider the tradeoffs between exempting a facility and allowing excessive mortality to fish populations.

Response:
Dams are held accountable for the water quality of the downstream waters and the requirement is to meet the assigned water quality standards for the river downstream of the impoundment. It is only within the impoundment itself that a different approach is being taken. Within a reservoir the water quality and physical habitat conditions will take on the characteristics of a lake. The requirement to achieve the highest attainable water quality within these reservoirs reflects the requirements in the water quality standards for lakes and reservoirs - where human effects are generally not allowed to cause any substantial changes from natural conditions. And this requirement is written the way it is because of the recognition that the reservoir itself is not a natural condition. Achieving the highest water quality in a reservoir parallels the need to maintain conditions at near natural levels in natural lakes. Ecology will also require a ten-year compliance schedule to systematically pursue all available technology to improve water quality in the reservoir, as well ensure that all feasible steps are taken to meet downstream water quality criteria and standards. If the standards cannot be met using all feasible controls, then a UAA may need to be developed to identify and formally adjust the standards so that they reflect the highest attainable water quality conditions both within the reservoir as well as downstream. Since the bottom line requirement is that all uses existing since 1975 must continue to be protected at the highest level that they have existed since 1975, there is a threshold beyond which further impact will not be tolerated. But the focus for the certification process is on protecting both the existing uses as well as all uses that have been designated for the water body that is found through careful analysis to also be attainable.

CRITFC
27. Comment:
Pg. 25. We wonder why Ecology chooses the 7Q-l0 as the flood flow metric for this guidance document and the TMDLs. A more appropriate metric would be the 7Q-20- this would ensure greater protection to the aquatic resource beneficial use from total dissolved gas impacts.

The total dissolved gas variance of 110% TDG at all times should be the ultimate goal to be achieved at the end of a 10 year adaptive management-compliance process for the 401 Certification. Fish passage protection through spill or surface bypass technologies should not be compromised in attaining this goal. The temporary fish spill variance should be limited to: 1) end of the 10 year compliance period at most and, 2) the active migration of all anadromous fish, including adults. There needs to be year-to-year flexibility in providing the fish spill variance timing as different physical, chemical and biological conditions combine to change fish migrations on an annual basis.

It is the responsibility of the dam owner to meet total dissolved gas standards by any means necessary, not limited to generation of power when markets are favorable. For example, Ecology should require applicants to consider running turbines during off peak

or low hydro demand periods and ground out power not needed in order to maintain the 110% TDG standard during high flow events outside of the active fish migration period or 125% TDG during the active fish migration periods. Ecology should require applicants to consider purchasing storage space in upstream reservoirs as a means to control total dissolved gas and assist in meeting temperature standards.

Response:
The 7Q-10 is Ecology's standard way of dealing with high and low flow situations over which, the applicant has little or no control. Ecology could use a 7Q-20 if the flows were divided into high flow and low flow seasons. This has been considered for the Columbia.

The adjusted fish spill higher gas levels (greater than 110% TDG) are now considered permanent in our standards after a NOAA Fisheries revisit in 2003 of the original risk assessment to fish exposure to TDG versus injury from turbines.

We recognize the need for flexibility in fish spill timing and understand that the beginning and end of fish spill is mostly under the responsibility of the fish agencies and the applicant. Purchase of storage space in upstream reservoirs might be an option for some of the Columbia River FERC applicants, but this is a more dam-specific scenario and does not belong in the guidance.

CRITFC
28. Comment:
Pg. 26. Hydro turbines release hydraulic oil and other substances into river during routine operations. These releases should be carefully monitored and if violations occur, turbine operation should cease until the problem is rectified.

Response:
We agree that action to prevent further oil entering the river would be appropriate.

CRITFC
29. Comment:
Pgs. 28-29. Please incorporate the following into the list:
Power peaking causes extreme diel shifts in river flows. These shifts, combined with daily heating of reservoirs can cause swings between the upper and lower ends of fishways. Power peaking also can cause stranding/entrapment of salmon fry and Pacific lamprey macrothalmia in habitat downstream of dams (Williams et al. 1998). Research in the Hanford Reach indicates that a large percentage (32.4%) of juvenile fish mortality from entrapment occurs from water temperature violations as pockets of water quickly reach up to 25 degrees C (Hoffarth 2003). Thus, power peaking causes the beneficial use to be harmed by temperatures that violate numerical temperature standards. Further, power peaking, is an action that has been shown to reduce adult passage success (Bjornn and Peery 1992).

Response:
We have added to No. 4, "Rapid fluctuations in river level can strand fish in pockets of water which can heat up to lethal levels on a warm day."

CRITFC

30. Comment:

Pg 30. The reduction of turbidity levels from a free flowing river by impoundment of a hydroproject has been documented to reduce protection of the beneficial use. For example, baseline turbidity levels have been positively correlated with juvenile salmon survival increases by Percy (1992), Marmorek et al. (2004) and NMFS (1999) and overall loss of anadromous fish productivity has been correlated to the loss of turbidity in the Mid-Columbia Reach from the construction of dams and reservoirs (Junge and Oakley 1966). A minimum baseline level of turbidity should be considered as requirement for a 401 certification.

Response:

We have added a bullet, "Settling behind the dam can make the river below unnaturally clear, with corresponding losses of fish productivity." And, "A minimum baseline level of turbidity to promote juvenile salmon survival may also be considered. The baseline may be found to be different than the numeric criteria."

CRITFC

31. Comment:

Pg. 31. Impacts of ammonia in hydroprojects are not mentioned. High levels of ammonia are noted as a potential limiting factor for fish in Snake River reservoirs by EPA and should be considered in the guidance document for evaluation.

Response:

Ammonia is considered under "Nutrients/trophic Status" since ammonia is an indicator of nutrient loading and this is the most common way it harms aquatic organisms.

CRITFC

32. Comment:

Pgs. 41 & 50. Distribution and production of exotic species that directly compete with existing beneficial fish use are facilitated by the change in river environments from a lotic to lentic system as a result of dams and reservoirs. There should be a component of the certification that requires applicants/owner to evaluate existence, status and distribution of exotic species in and around hydroprojects undergoing relicensing. Monitoring and preventative plans to reduce or control these exotics should be a component of the 401 Certification.

Response:

The guidance addresses exotic species through the section in Chapter 3 on aquatic plants and animals and later in this chapter, under project-related and cumulative impacts.
CRITFC

33. Comment:

Pg. 34. For dissolved oxygen the criteria state that DO may not be lower that 0.2 mg/l below natural conditions due to cumulative human actions. The rules provided from the 2003 criteria only speak to the lowest 1-day minimum DO of surface waters. The allowable DO concentrations of the intragravel environment are not specified. These DO

concentrations are critical for juveniles hiding in the substrate and for eggs incubating in the gravel.

Although Ecology provided numerous options for hydroplants to exceed water temperatures supportive of the inherent beneficial uses, it is vague on the allowable DO conditions. Is any DO lowering allowed that is produced by a hydrofacility?

Response:
No, not more than 0.2 mg/L below natural conditions. This 0.2 mg/L is measured cumulatively, that is, additional inputs up to 0.2 mg/L throughout the river and tributaries by all sources.

CRITFC
34. Comment:
Pg. 34. There is a set of cumulative water quality pollution problems that operate interactively that require a continuous and spatially-distributed monitoring approach. Increased nutrient inputs, coupled with reduced reservoir flushing and increased water temperatures in a reservoir compared to a natural river, can yield an increase in nuisance algae production, which can cause diel cycles of DO and pH. An increased pH can lead to an increased precipitation of heavy metals on streambed substrates. Input of organic matter from sewage plants or silt runoff can exacerbate the reductions in DO. Deposition of organic material on the streambed can localize the DO reduction in the substrate. These interactions require monitoring of at least these components of water quality: algal concentrations, temperature, flows, surface and intragravel DO, pH, heavy metals, BOD, nutrients (N, P), and dissolved organics. This monitoring needs to be done continuously and also be well distributed on an area basis and with depth in the water column and substrate.

Response:
We think that the monitoring program recommended in the guidance will address many of these concerns. Of course, the interaction of different water quality parameters does have to be kept in mind.

Another bullet has been added, "Where deposits of organic material are found within the reservoir or streambed, an assessment of DO should be targeted, especially for areas of potential spawning activity."

CRITFC
35. Comment:
Pg. 36. The actions suggested as means to control nutrient sources in reservoir systems (e.g., sealing the sediments to reduce nutrient cycling, chemical clarification with alum, and copper sulfate treatment to kill algae) are extreme measures with high biological risks. In addition, these measures do not really address the increase in nutrient inputs. They merely hide some of the in-reservoir effects. Real measures to control nutrient inputs are needed. Increased nutrient input should not be considered to be simply part of the environmental degradation package that accompanies hydro development that must then be treated as a natural background. Sources of nutrient input must be regulated to

create target concentrations similar to the natural condition, just as natural temperature conditions should be the basis for judging the adequacy of the thermal environment.

Response:
We agree and think we have stated this in the opening sentence of this portion, "Nutrient source control is the first step to balance the relative responsibility for creating the reservoir…" The management tools are, as you point out, not real cures and have other risks associated with them.

CRITFC
36. Comment:
Pg. 37. For fecal coliform contamination, criteria for primary or secondary contact recreation, specify numbers of colonies per 100 ml. However, if these criteria are exceeded, the monitoring recommendation is to separate our human and natural sources and to separate upstream sources from those associated with the hydro facility. The fecal coliform criteria do not include variables such as allowable exceedance of the criteria. There is no indication what the hydro facility is to do after it determines that it is responsible for say 20% of the coliform problem. Does this mean that the hydro facility only needs to clean up a small amount and that even if it cleaned up its own pollution totally and could thereby cause fecal pollution to be below standards, it wouldn't need to do so because it is not responsible for the entire problem. The direction to evaluate hydro responsibility against the fault of other sources seems ambivalent about responsibility for fecal pollution and whether a hydro facility needs to ensure its own operations to be non-polluting, even if others do not.

Response:
Utilities have to take responsibility for their own actions and will be held responsible only for those actions to reduce fecal coliform that are directly under their control.

CRITFC
37. Comment:
Pg. 40. Filing plans with EPA is essential. However, it should also be specified that all materials needed to deal with all known and anticipated kinds of spills should be readily available on site. Many foreseeable spills cannot be responded to rapidly enough due to lack of access to equipment and materials needed to clean up or prevent pollutants from reaching the river. Booms, skimming equipment, containment equipment, absorbents, dispersants, neutralizing chemicals, etc. should be specified and certified to be present and functioning.

Response:
Agreed. This should all be part of a spill prevention plan. We think that the guidance covers this sufficiently.

CRITFC
38. Comment:
Pg. 43. Ecology is correct to point out the important role of flow in affecting fish survival, either directly through passage impairment, or in influencing various water

quality parameters (e.g., via water temperature increase, increased scouring in floods, reduced DO, etc.). However, no requirements for flow management as it relates to direct fish survival or related impacts via impairments to various water quality parameters are mentioned. It is stated (p. 44) that PHABSIM modeling of instream flows is generally required to estimate the effect of varied flow regimes on fish habitat availability. However, no biological basis is given as a general rule for evaluating the IFIM information provided. Does this imply that the final decision is solely left to Ecology to approve a level of impact to fish habitat and to judge how flows affect each species in the fish community? Is it solely the responsibility of Ecology to judge that flows that protect smallmouth bass in a reservoir are just as valid (or less valid) as flows to protect Chinook and steelhead?

Given the many and diverse methods for evaluating instream flows and to weigh the information that comes from such analyses, Ecology needs to (1) make clearer its biological framework for evaluating all instream flow information, and (2) to create an integrated evaluation of flows. An integrated analysis would properly take into consideration the strengths and weaknesses of each method. Where uncertainty exists, this needs to be acknowledged and deference should be given to the native salmonid community in order to be most conservative of the most sensitive, beneficial, instream use.

It should not be the sole responsibility of the utility to create a biological decision framework in IFIM(if this is the methodology used) where it balances economics of turbine generator operations with fish, or balances warmwater species with coldwater species, or creates conflicts between recreation-oriented flow management and the fish resources. Time and money constraints are listed as valid considerations in choosing the instream flow method, equal to availability of historical flow records. However, what is missing is the importance of the species involved. The level of analysis required (including number of complementary methods providing multiple lines of evidence) depends upon the degree of uncertainty in flow variations and their potential impacts. To pre-judge the seriousness of the consequences of the flow alterations, thereby claiming that costs need to be very low and analysis minimal, is to seriously minimize the importance of the resources involved. The aquatic resources should always be given deference.

Response:
See Chapter 3 Section 2 of the guidance for details on studies that can be required to determine streamflows necessary for fish survival and for spawning, rearing, and passage. The objectives of these studies are listed in detail.

Ecology does have exclusive authority to decide instream flows below hydroelectric projects that require a 401 Water Quality Certification. But Ecology does seek out and give strong consideration to instream flow recommendations from the Tribes, and WDFW, federal fish agencies and all others with useful information.

Because the streamflow can only be one number at any instant in the stream, there must be a balancing between different fish species and life stages since all of them exist simultaneously in the stream.

Ecology sets instream flows which fully protect and preserve the fish and fish habitat.

CRITFC

39. Comment:

Pg. 44. The IFIM methodology is fraught with inaccuracies and unsupported assumptions and often fails to adequately characterize the carrying capacity of river systems, because the methodology is almost always applied to post hydro-impacted, impaired systems with river channels and other characteristics that have been significantly degraded. Further, the IFIM methodology is not possible on large river systems. The guidance document should give credence to alternative methodologies that are more rigorous in defining riverine habitat to support aquatic biota including but not limited to hydraulic geometry evaluations and models to compare pre and post dam construction combined with fish habitat utilization studies *(see* Orsborn 1 990a, Orsbom 1 990b, Amerman and Orsbom 1987, Heede and Rinne 1990 and Bunn and Arthington 2002), GIS- defined habitat analyses, numerical optimization techniques coupled with stock recruitment models *(see* Jager and Rose 2003) and life cycle analyses *(see* Petrosky et al. (2001) and Deriso et al. 2001).

Response:

IFIM is often selected as the best available method for predicting how the quantity of available fish habitat changes in response to incremental changes in streamflow. IFIM studies have been done on rivers such as the Columbia and Snake Rivers. It has repeatedly been upheld by the Washington State Supreme Court as a proper and valid method for Ecology to use in determining instream flows below hydroelectric projects.

The U.S. Fish and Wildlife Service in the late 1970s (Bovee, 1982) developed this methodology. The IFIM involves putting site-specific streamflow and habitat data into a group of models collectively called PHABSIM (physical habitat simulation). The most common model is IFG4, which uses multiple transects to predict depths and velocities in a river over a range of flows. IFG4 creates a cell for each measured point along the transect or cross-section. Each cell has an average water depth and water velocity associated with a type of substrate or cover for a particular flow. The cell's area is measured in square feet. Fish habitat is defined in the computer model by the variables of velocity, depth, substrate, and/or cover. These are important habitat variables that can be measured, quantified, and predicted.

The IFIM is used nationwide and is accepted by most resource managers as the best available tool for determining the relationship between flows and fish habitat. However, the methodology only uses four variables in hydraulic simulation. At certain flows, such as extreme low flows, other variables such as fish passage, food supply (aquatic insects), competition between fish species, and predators (birds, larger fish, etc.) may be of overriding importance. In addition to the PHABSIM models, IFIM may include reviewing water quality, sediment, channel stability, temperature, hydrology, and other

variables that affect fish production. These additional variables are not analyzed in this report.

After the IFG4 model is calibrated and run, its output is entered into another model (HABTAT) with data describing fish habitat preferences in terms of depth, velocity, substrate, and cover. These preferences vary according to fish species and life-stage (adult spawning and juvenile rearing).

CRITFC

40. Comment:

Pg. 50. The 401 certification process should examine indirect mortality and the cumulative impacts of a hydroproject on the beneficial use *(see* Budy et al. 2003). For example, with respect to fish, consideration should be given to the impacts of stress and disease of fish that must migrate through warm temperatures caused by hydropower project operations and configurations. These cumulative impacts can reduce adult gamete viability and energy reserves causing prespawning mortality and lack of spawner success and distribution to all good upstream habitat. For juvenile salmon, high temperatures and/or cumulative exposure to levels of total dissolved gas can cause susceptibility to predation (Marmorek et al. 2004) and even loss of the ability to smoltify (Duston et al. 1991).

Early in the Water Quality guidance, Ecology appeared willing to make the hydropower facility exempt from many impacts created by its activities and presence in the river. The operation of the dam creates a reservoir system that operates at a water surface elevation selected by the dam operator to maximize its electrical generating capacity. Other elevations and operating conditions could be more beneficial for fish and wildlife. There are many activities within the scope of control by the hydropower operator. Cumulative effects in the Columbia River, for example, have resulted in increasing levels of toxins and increasing thermal loads, as examples. While the dams may contribute significantly toward reservoir heating, other sources of thermal loads exist, such as power plants, heated effluent from pulp mills and urban sewage, and heated tributaries due to degraded riparian zones and widened channels. If Ecology intends not to make the hydropower facilities responsible for their portion of the cumulative thermal load (or portion of the overall toxicant loading), it is necessary to still deal with the cumulative effect problem. The hydropower facilities should have some financial responsibility for assisting the other sources to reduce their loads to compensate for the loads that they impose themselves on the river.

Response:

Ecology intends to require that the applicants take responsibility for activities under their control or within their jurisdiction. In other words, applicants have to do their portion of work to reduce pollution to meet water quality standards for pollution they have caused, their part of the cumulative total.

TMDLs are the tools most often used by Ecology to assign responsibility for pollution by allocating loads to each polluter. An applicant may pay for pollution reduction upstream from project boundaries for projects that would result in their portion of the water quality

standards being met within their project boundaries. This is known as water quality offsets in the water quality standards.

CRITFC

41. Comment:

Editorial comments

We recommend a copy writer to review the document before it goes into final. There are numerous grammatical and organizational errors (*e.g.*, page numbering, matching of titles, etc.) throughout the document.

- (pg. i) Table of Contents' page numbers do not match with actual pages
- (Chap. 1) Much of the information could be set out and bulleted/numbered, or better separated for ease of reading.

Response:

This will be done.

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WDF&W

42. Comment:

The use of "re-license" and "license" appear to be used inconsistently in the document. Even though the title of the document refers to existing dams and appears to be focused at the re-licensing process, the references to the "licensing" process appear to apply the document to new licenses. It is also unclear if the document applies to new licenses for existing hydropower dams (unlicensed). The document refers to "utilities", "dam operators", "project license owner", and "licensees". It would provide some clarity to use the same term throughout the document. One suggestion is to use the term "license applicants" (applicants). This would apply to all applicants in a FERC re-licensing, and you would not need to write language for non-operators that submit a competing license application. The Washington Department of Fish and Wildlife is referred to in two different manners (see Wildlife Habitat section). These references should be consistent to avoid confusion.

Response:

A clarification has been made that this guidance does not apply to applications to FERC for new projects to place a dam on a river or stream where presently none exists. It does apply to each existing hydropower project that requires relicensing, and to modifications of existing projects that require a new license from FERC.

References to "utilities", "dam operators", "project license owner", and "licensees" have all been changed to "applicant".

The agency will be referred to as the Washington Department of Fish and Wildlife.

WDF&W

43. Comment:

Pg 9. We would like to see some additional references to consultation between Ecology and WDFW regarding fish and wildlife issues. We believe that additional references would make it clear that our agencies confer with each other. It would be useful for the license applicants to include WDFW in consultations regarding issues that may be included in the 401certification.

Response:

Ecology recognizes the need for a jointly agreed on communication protocol between the two agencies to address compatibility between negotiated agreements and 401 conditions. As a placeholder, further language will be added in Chapter 2 "Ecology and the Washington Department of Fish and Wildlife will work together after the guidance is finished to resolve procedural conflicts concerning negotiated agreements and 401 water quality certification conditions."

WDF&W

44. Comment:

Pg. 9. How should coordination occur between the development of negotiated settlement conditions and the development of water quality certification conditions?

The best approach is to have Ecology participating in the negotiations, from the beginning. Given limited resources, we realize this is not always possible. If Ecology's full participation is not possible, participation in committees addressing flow issues and water quality issues would be best. Lacking this level of participation meeting with the applicant and coordinating with WDFW and local tribes is a possible approach. Another approach to consider would be to develop an interagency agreement between Ecology and WDFW, to allow WDFW to assist (or represent) Ecology in the settlement agreement negotiation process.

Response:

The best approach is for Ecology to participate in the appropriate negotiations from the beginning; and Ecology will, if possible. While participation in the fishery and other resource negotiations would assure everyone involved that limiting water quality concerns would be part of the deliberations, Ecology would usually not participate in every one of these meetings. More often, Ecology would consider participating in targeted meetings that address water quality and flow issues. Ecology would encourage applicants to form issue groups to include both water quality and flow issues in one meeting. The decision to participate is made by the regional manager who will be signing the water quality certification. This is usually, but not always, the water quality regional section manager.

The following language has been added, "Ecology and the Washington Department of Fish and Wildlife will work together after the guidance is finished to resolve procedural conflicts concerning negotiated agreements and 401 water quality certification conditions."

WDF&W

45. Comment:

Should mandatory conditions to support fish and wildlife that have not been agreed upon in a negotiation, or required by the FERC, be included in a 401 certification?

The short answer is yes, sometimes, following extensive consultation with WDFW. It is possible that a negotiated settlement may not address all (or any) fish and wildlife issues. The applicant may reach a settlement with only some of the interested organizations, or only regarding some issues. These unresolved issues may be left to other processes for a decision to be made. This would be a situation where a fish or wildlife issue could be included in the 401certification. At the time of the 401certification it is not usually possible to know what non-mandatory requirements the FERC will include in the license. Therefore, it is not usually possible to include the FERC requirements in the 401 certification.

Response:

Ecology will consult with the Washington Department of Fish and Wildlife to determine if conditions not agreed to in FERC process negotiation should be included in a water quality certification. At the same time, Ecology will ask the WDF&W to consult with Ecology on the terms of the developing settlement negotiations to make sure that settlement conditions do not conflict with water quality standards.

The following language has been added to Chapter 2, "Ecology and the Washington Department of Fish and Wildlife will work together after this guidance manual is finished to resolve procedural conflicts between negotiated agreements and 401 water quality certification conditions."

WDF&W

46. Comment:

What do we do when water quality certification decisions and conditions potentially conflict with settlement agreements?

If a settlement agreement conflicts with conditions in a 401 certification, it demonstrates that the settlement agreement is not comprehensive, did not address all of the issues, and may not have included all of the interested organizations and individuals. This does not necessarily invalidate the settlement agreement, it shows that additional measures will need to be implemented to completely address all of the issues associated with the project. Before Ecology issues a 401 certification that potentially conflicts with a settlement agreement that WDFW is a party to, WDFW expects that both agencies would have exhausted all reasonable means of developing a unified position.

To address conflicts the participants in the licensing proceeding should collaborate to determine the basis for the potential conflict and identify the possible repercussions that could result from inconsistent requirements. Due to the nature of negotiated settlements the measures could have a delicate balance. Information gathering would be a critical

first step and the resulting collaboration should lead towards 401 conditions that assure compliance with state water quality standards and preserve the resource benefits associated with the settlement agreements that are the product of the ALP and ILP developed by FERC.

Response:
Ecology agrees that both agencies need to exhaust all reasonable means of developing a unified position, and one of the first steps is collaborating on information gathering. The Integrated Licensing Process' strict timelines should create more opportunities early on for collaboration.

Two examples of potential areas of conflict between settlement agreements and water quality certification conditions can include:

- settlement conditions that result in water quality standards exceedances such as dewatering a river stretch in trade for off-site mitigation, and conversely,
- water quality certifications that require flow in a stretch of river after settlement agreements are in place allowing the river to be dewatered in trade for off-site mitigation.

Other potential areas of conflict include timing of monitoring and studies, duplication of studies, timing of improvement projects, slightly differing requirements resulting in wasted inefficient efforts, water quality standards exceedances, and indirect harm to fish and wildlife by jeopardizing mitigation protect agreements.

The following language has been added to Chapter 2, "Ecology and the Washington Department of Fish and Wildlife will work together after the guidance is finished to resolve procedural conflicts concerning negotiated agreements and 401 water quality certification conditions."

WDF&W
47. Comment:
Pg.1. The statement that issues "are usually dealt with initially through a negotiated process" is not necessarily correct. If the traditional or integrated processes are used there is no requirement for negotiations. We have often had to deal with issues by making requests to the FERC. The FERC often issues orders for additional information. If there are initial negotiations, they are about process, not the issues. If you change "usually" to "often" and delete "initially" the statement would be better.

Response:
The sentence has been changed to read, "Concerns about recreation, cultural, historical resources, fish and wildlife resources and many other issues are dealt with through the FERC licensing process. This process can include negotiation with all parties, direct requests to FERC, or requirements from FERC for additional information."
WDF&W
48. Comment:

Pg.1. The statement " … become conditions in the final license" should be changed to " … become conditions in the new license". If the proceeding is for a re-license there is already an existing final license.

Response:
The change has been made.

WDF&W
49. Comment:
Pg. 1. It is unclear what a "informal negotiated licensing agreement" would be. It would appear that an agreement would be formal.

Response:
The word "informal" has been dropped.

WDF&W
50. Comment:
Pg. 1. Is this intended to apply to all FERC licenses, or just re-licenses of hydroelectric projects?

Response:
A clarification has been made that this guidance does not apply to applications for new projects to place a dam on a river or stream where presently none exists; it does apply to each existing hydropower project that require relicensing and to modifications of existing projects that require a new license form FERC.

WDF&W
51. Comment:
Pg. 2. We would suggest that "… submit its 401 … application no later …" be modified as follows "… submit its 401 … application to Ecology no later …".

Response:
The change has been made.

WDF&W
52. Comment:
Pg. 3. It is my understanding that 401 water quality certificates have been issued for non-navigable waterways associated with small hydroelectric projects.

Response:
Under the definition found in Clean Water Act regulations, 'navigable' applies to all rivers, lakes, and tributaries as well as adjacent waterbodies.

WDF&W

53. Comment:

Pg. 4. The statement "… will be noted for each parameter, mostly in the temperature portion of Chapter 3, Section 2" could read better if changed to statement "… will be noted for each parameter, these are mostly related to temperature requirements (Chapter 3, Section 2)".

Response:

The change has been made.

WDF&W

54. Comment:

Pg.6. Would the sentence be better if "senior" is inserted between "proprietary" and "rights"?

Response:

The sentence has been changed to read, "FERC projects may not impair the proprietary *senior* rights held by others."

WDF&W

55. Comment:

Pg.7. A space needs to be inserted between "401" and "water".

Response:

The edit has been made.

WDF&W

56. Comment:

Pg.9. While a FERC license may be issued for 50 years, the conditions of the water quality certification may continue longer if the project continues to operate under annual licenses (*e.g,*. Cushman – 30 years).

Response:

The language has been changed to read, "…for *at least* 30 to 50 years."

WDF&W

57. Comment

Pg. 11. This sentence refers to the "project license owner". This may not be the only organization submitting the referenced documents. A competing license applicant may also submit documents.

Response:

The sentence has been changed to read, "When the *applicant* provides Ecology with a copy of the Notice of Intent and…"

WDF&W
58. Comment:
Pg 17. I am unfamiliar with the term "crosswalks" in this context. Is this referring to electronic links?

Response:
The term "crosswalk" has been changed to "directory".

WDF&W
59. Comment:
Pg. 25. Consider changing "juveniles" to "juvenile fish".

Response:
The change has been made.

WDF&W
60. Comment:
Pg. 43. The phrase "… be are an issue, …" should be changed to "… are an issue, …".

Response:
The edit has been made.

WDF&W
61. Comment:
Pg. 43. We would suggest adding a bullet stating "Reservoir fluctuations that impact fish spawning and rearing habitat." A bullet should also be added for upstream and downstream passage impediments associated with the modification of flows due to the dams.

Response:
One bullet has been added:
"Reservoir fluctuations"
The last bullet has been modified
"Flow blockages *and impediments affecting* upstream or downstream migration of fish."

WDF&W
62. Comment:
Pg. 43. Monitoring of reservoir habitat must also be included. Fish passage monitoring should also be included. Monitoring of impacts to resident fish passage needs to be added.

Response:
The language has been changed to read, "Ecology requires studies for 401 certifications to answer the questions of how flow *below, above and through* the dam is related to fish survival for *various* fish species."

WDF&W
63. Comment:
Pg 44. At the end of this paragraph a statement should be added that the IFIM and PHABSIM processes require consultation with Ecology, fish agencies, and affected tribes.

Response:
The paragraph has been changed to read, "The IFIM and PHABSIM processes require consultation with Ecology, fish agencies, and affected tribes."

WDF&*W*
64. Comment:
Pg. 46. The reference should be to the Washington Department of Fish and Wildlife (WDFW), not " the Washington State Fish and Wildlife Agency".

Response:
This reference has been changed to "Washington Department of Fish and Wildlife (WDFW)"

WDF&W
65. Comment:
Pg. 46. Consider changing " … zones barren of most wildlife." to " … zones barren of most vegetation and inhospitable to most wildlife."

Response: The change has been made.

WDF&W
66. Comment:
Appendix 3. Consider including the form for new hydropower dams.

Response:
Since this guidance only pertains to existing projects or modifications to existing projects, a form for new proposed hydropower dams will not be included in the application form. If this guidance is revised to include new proposed hydropower projects, this form will be considered for inclusion in the guidance.

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Avista
67. Comment:
Biological objectives and other outcome-based approaches should be included as an appropriate approach to meeting water quality standards under appropriate circumstances.

Avista believes that the Revised Draft 401 Guidance Manual does not adequately address the array of appropriate options for meeting water quality standards. In particular, we would like to see further focus on and discussion of the use of biological objectives and

other outcome-based approaches in those circumstances where a rigorous adaptive management plan is used.

This approach was utilized in Ecology's § 401 certification for the Lake Chelan Project, which was affirmed by the Washington Pollution Control Hearings Board (PCHB). Confederated Tribes of the Umatilla Indian Reservation v. Department of Ecology, PCHB No. 03-075, April 21, 2004. The endorsement by the PCHB of this approach suggests to Avista that Ecology's decision to accept outcome-based adaptive management strategies is both legally sound and appropriate policy. Yet, the current Revised Draft 401 Guidance Manual makes essentially no mention of this important water quality management tool.

Avista views the Lake Chelan case as an important development worth incorporating into the Revised Draft 401 Guidance Manual, so that other hydroelectric licensees can consider proposing a similar approach when the circumstances warrant. In the Lake Chelan case, compliance with the numeric water quality standard for temperature was not only infeasible but would have been detrimental to an important objective, fish habitat. Although it is not necessarily a common scenario, the Lake Chelan case is by no means an anomaly. For example, structural modifications to reduce total dissolved gas (TDG) levels to the numerical standard may do little for the resource and be very costly. In the case of TDG, where the standard exists solely to protect fish populations, alternative mitigation focused on outcome-based population objectives may prove more effective than working to meet a numeric standard.

By shifting the focus to biological objectives and outcomes under these circumstances—which is the underlying justification for numeric standards to begin with—a resolution can be reached that is both feasible and better for the environment. Avista therefore suggests that the next draft of the Revised Draft 401 Guidance Manual contain more discussion of when and how Ecology will use biological objectives and outcome-based approaches for those water quality parameters that cannot meet water quality standards.

Response:
The water quality numeric criteria are developed to protect designated uses. They are used as the primary attainment goal. If they cannot be met after the applicant has exhausted all reasonable methods, then tools are found in the water quality standards that allow for alternative criteria to be developed, provided that the uses do not suffer. We explain these tools in the guidance.

Ecology has written sufficient language in the 2003 proposed water quality standards to address outcome based concerns. The language was developed through involvement with the public, including much input from utilities. This language, under *Compliance Schedules for Dams*, directs the applicant to make a good effort to meet water quality criteria. If the criteria have not been achieved after a period of time, only then will we consider the water quality tools as a means of developing alternative criteria.
We think the results of the PCHB Chelan decision is sufficiently incorporated in the document. The Chelan 401 water quality certification provided for a compliance plan

using adaptive management to meet water quality standards over the compliance period. It did not excuse non-compliance but recognized that a standards change request would be considered at the end of a compliance period, if justified.

Avista
68. Comment:
Pgs. 50-51. Further clarification is needed that licensees are not responsible for environmental impacts resulting from economic development and recreational activities that are attracted by the benefits of a hydroelectric project.

Avista appreciates Ecology's efforts to address concerns raised by several earlier commenters that the initial draft guidance document appeared to hold dam owners responsible for the environmental impacts of development that is attracted to a hydroelectric project. The Revised Draft 401 Guidance Manual now states in one place that "Activities that should be addressed in plans incorporated into 401 certifications are those that affect water quality and are within the scope of the applicant's control." (p. 51, emphasis added). However, several statements remain throughout the document that suggest Ecology believes dam owners are, or should be, responsible for water quality problems caused by the activities of others. Avista respectfully requests that these additional statements be revised or deleted in order to be consistent with Ecology's stated position that applicants are responsible for only those activities within their control.'

Response:
The initial background statement, "Activities that should be addressed are those that affect water quality and are within the scope of the applicant's control" is meant to set the stage for the rest of the discussion. However, the third bullet has been modified for clarity to read, "Shoreline recreational development and public access development associated with license conditions *and within the control of the applicant*, such as docks and marinas, jetties, rip-rap, boat launch ramps, camp grounds, and roads."

Avista
69. Comment:
Pg. 16. Applicants and the public should be provided an opportunity to comment on draft certifications.

An opportunity for applicants and other interested persons to comment on a draft § 401 certification should be provided as part of the process outlined in the Guidance Document. This additional public comment period, which could be similar to what Ecology currently provides through WAC 173-225-030 for § 401 certification applications, would be beneficial to all interested parties. It would assist in identifying concerns, factual errors, or potential legal deficiencies with the draft, and provide applicants and Ecology an opportunity to address these issues prior to issuance of the final certification. Providing this one additional step would also reduce the number of appeals to the PCHB.

Avista understands that Ecology has expressed concerns that providing this additional comment period would create an inconsistency with its certifications of § 404 dredge and fill permits, which are issued on a tighter time schedule that would not allow sufficient time for such review. Avista is unaware of any law or rule, however, that would prevent Ecology from providing an opportunity to comment on proposed certifications in the context of a FERC-issued license or that would require Ecology to provide a similar opportunity for other types of certifications. Additionally, any inconsistency is justifiable as a matter of policy by the different time periods within which Ecology must act on different certification requests.

Response:
Ecology is planning to provide opportunity for review of the draft conditions of the 401 water quality certifications.

Avista
70. Comment:
Pg. 24. The Guidance should clarify that for a reservoir that is classified as a "lake," "natural conditions" are the conditions that result from the existence and operation of the reservoir.

As the Revised Draft 401 Guidance Manual notes, the concept of "natural conditions" is not readily applicable to a water body that is itself artificial. In addition, it is unclear what is meant by the stated goal of "the highest attainable water quality conditions within the reservoir. It appears Ecology could require, through certification, actions to improve the water quality beyond that which is "naturally" attained through the operation of the hydroelectric facility. Given all the factors that affect water quality, and the range of active regulatory programs underway, certification should focus on those water quality issues directly linked to the ongoing operations of a development.

Response:
Dam owners can improve or worsen water quality significantly through the operation of the reservoir, thus it would be inappropriate for Ecology to take the position that whatever water quality is produced through the design and operation of a hydropower facility is natural. A water quality certification can contain a compliance schedule that requires all known reasonable and feasible steps be taken to improve water quality. The goal is to improve the water as much as is reasonably and feasibly possible. The requirement to achieve the highest attainable water quality within these reservoirs reflects the requirements in the water quality standards for lakes and reservoirs - where human effects are generally not allowed to cause any substantial changes from natural conditions. And this requirement is written the way it is because of the recognition that the reservoir itself is not a natural condition.

Avista
71. Comment:
Pg. 16. The Guidance should omit references to the issuance of Administrative Orders under RCW 90.48 for the § 401 certification process.

Given that water quality certifications must be incorporated as mandatory conditions by FERC, a separate enforcement order seems redundant at best. It also raises the legal question of the effect of preemption under the Federal Power Act. Putting a licensee in essentially a "dual jeopardy" situation almost invites appeal on those grounds, and would not seem to encourage settlement.

Response:
Ecology has to maintain a mechanism for addressing water quality problems for at least the 30 to 50 year life of the license. This is especially important when the certification contains conditions for adaptive management when the facility is exceeding water quality standards at the time a certification is written. It is extremely important when an appeal of certification conditions is resolved at the state level, but the conditions of the resolution are not incorporated into the federal license. Ecology will continue to rely on FERC to incorporate 401 water quality certification conditions and to enforce those conditions. Ecology will maintain the right to enforce existing Orders or issue further Orders and to enforce them if needed. If Ecology were to consider enforcement, before taking enforcement action our agency would consult and coordinate with FERC and others who may be affected.

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PSE
72. Comment:
Pgs. 28-31. The usefulness of a guidance document is best measured by how well it addresses the problems most likely to be encountered by the intended user group, in this case utilities with hydropower projects, many of which feature large storage reservoirs. We believe the current guidance started from the premise that most hydropower projects will be able to comply with existing state or federal water quality standards (WQS). Our experience indicates otherwise. Large reservoirs with hydraulic residence times typically in excess of fifteen days are not likely to meet thermal or turbidity criteria in general and may not meet other WQS on occasion. If Ecology's guidance recognized and anticipated compliance issues associated with the existing and proposed WQS, then it would focus attention on those specific measures most likely to benefit the water quality certification process.

Response:
The guidance is an aid to determine whether dams can be certified as meeting the state water quality standards. We recognize the challenge in this. Therefore, we have provided a process to ensure that by the end of the compliance period the dam is either in compliance with the standards or sufficient information has been amassed to successfully change the water quality standards through a use attainability analysis. We find that the process we have established is the most realistic way to conduct certifications for the hydropower facilities.

The UAA guidance is currently under development and will, when finished, address your concerns and be reflected into this guidance. Ecology is providing opportunities for public input. We suggest that you remain involved with this. More information about

Washington UAA guidance can be found on our website:
http://www.ecy.wa.gov/programs/wq/swqs/uaa.html.

PSE
73. Comment:
Pg. 16. In addition to our previously submitted comments, we are taking this opportunity to comment on aspects of implementation and integration of FERC and Water Quality Certificate (WQC) requirements. Our primary concern here lies with consistency between federal and state regulatory requirements, timelines and clarification of which terms and conditions apply when. With respect to practical implementation, the WQC is closely related to the FERC license. It will contain operational and monitoring prescriptions based in part on conditions imposed in the FERC license. Furthermore, the statutory basis for the active implementation of the WQS is issuance of the license by FERC. Hence, timeline requirements of the WQS must be keyed to license issuance. Timelines required in the WQC where the applicant is to conduct specific activities in response to its terms and conditions should be stated relative to the date of license issuance, not the date of certification. Failure to adopt this approach results in unnecessary duplication of effort.

Response:
We agree that in respect to implementation, the water quality certification and the FERC license are closely linked. We should strive for consistency between federal and state requirements and timelines. There are at least two statutory bases for active implementation of the water quality standards in respect to federally licensed dams. One is, as you point out, the conditions found in the FERC license. The other is the states statute, 90.48, the Water Pollution Control Act. The state issues water quality certifications as state administrative orders. Ecology will continue to rely on FERC to incorporate 401 water quality certification conditions and to enforce those conditions. Ecology will maintain the right to enforce existing Orders or issue further Orders and to enforce them if needed. If Ecology were to consider enforcement, before taking enforcement action our agency would consult and coordinate with FERC and others who may be affected.

The following sentence has been added, “Ecology will strive for consistency between federal and state requirements and timelines.”

PSE
74. Comment:
Pg. 17. Implementation of WQS and FERC license requirements must address interim terms and conditions. Many FERC licenses prescribe a series of operational changes, construction activities, and equipment modifications over the duration of the license term that have the potential to affect water quality as well as the capability of the licensee to carry out the prescribed terms and conditions. FERC expects that most construction activities associated with a license will be completed within four years of license issuance. However, if significant construction is involved this time period may be and frequently is extended. Thus the terms and conditions relating to the long-term

operations of a project may not be capable of being fully implemented for a number of years. The terms and conditions in the WQC must then address the interim and final conditions.

PSE recommends that Ecology create a separate interim standards section in the water quality standards certificate, especially on those projects where a number of activities are proposed in the initial years of the license that have the capability to affect either the ambient water quality conditions or the ability to measure the same. We believe that such an approach would help clarify the differences between interim conditions and long-term operational conditions and when each is to apply.

Response:
The goal of the water quality certification is for the facility to meet water quality standards. This may take several years to accomplish. The fourth sentence on page 17 has been replaced with, "Water quality certification conditions will contain a compliance schedule and contain an adaptive management approach if water quality improvement results are uncertain."

Changing the water quality standards is beyond the scope of this guidance.

PSE
75. Comment:
Pg. 16. The statutory basis for the active implementation of the WQS is issuance of the license by FERC. Hence, timeline requirements of the WQS must be keyed to license issuance. timelines required in the WQC where the applicant is to conduct specific activities in response to its terms and conditions should be stated relative to the date of license issuance, not the date of certification. Failure to adopt this approach results in unnecessary duplication of effort.

Response:
Ecology issues water quality 401 certifications as state enforceable administrative orders. Ecology will continue to rely on FERC to incorporate 401 water quality certification conditions and to enforce those conditions. Ecology will maintain the right to enforce existing orders or issue further orders and to enforce them if needed. If Ecology were to consider enforcement, before taking enforcement action our agency would consult and coordinate with FERC and others who may be affected.

The following sentence has been added, "Ecology will strive for consistency between federal and state requirements and timelines."

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Pacificorp
76. Comment:
Pg. 16. Ecology should provide opportunities for the applicant and the public to comment on the draft certification decisions and conditions.

Pursuant to WAC 173-225-030, Ecology provides an opportunity to comment on a section 401 certification application As reflected in the draft guidance, however, Ecology does not make a proposed certification decision available to either the applicant or the public, much less provide an opportunity for the applicant or the public to comment on a proposed decision. PacifiCorp's previous comments on the draft guidance urged Ecology to make a proposed certification decision, including conditions, available to the applicant and the public and to provide a reasonable opportunity for the applicant and the public to comment on the proposal. In particular, PacifiCorp recommended a three-step comment process consisting of (1) applicant review and comment on a preliminary certification proposal; (2) public notice and an opportunity to comment on a proposed certification decision, including proposed conditions; and (3) an opportunity for the applicant to respond to any public comments.

PacifiCorp believes that an opportunity to comment on proposed certification decisions is supported not only by applicants, but also by governmental and nongovernmental organizations and individuals who have an interest in the decisions. Such an opportunity would allow the applicant and others to provide Ecology with more specific comments and information; would allow Ecology to respond more specifically to the concerns expressed; and would likely reduce the number of appeals of certification decisions, as well as the issues raised on appeal.

PacifiCorp understands that Ecology agrees that applicant and public comment on a proposed certification decision would be useful. Nonetheless, Ecology has expressed concern that doing so would create an inconsistency with its certifications of section 404 dredge and fill permits, which are issued on a schedule that does not allow sufficient time for comment on a proposed certification decision. Assuming that it is infeasible to allow public comment on proposed certifications in the context of section 404 permits, however, PacifiCorp cannot identify any legal or other impediment to providing an opportunity to comment on proposed certifications in the context of a Federal Energy Regulatory Commission (FERC) license. No law or rule of which PacifiCorp is aware would require Ecology to provide similar opportunities to comment on all types of certifications. Moreover, any inconsistency could readily be justified as a matter of policy of the different periods within which Ecology must act on certification requests.

Given the apparently strong and widespread support for providing an opportunity for public comment on proposed certification decisions, and given that the only apparent objection to providing such an opportunity is a perceived inconsistency with another Ecology certification program, PacifiCorp urges Ecology to give further consideration to this suggestion. Furthermore, if Ecology concludes that additional legal authority is needed to implement the suggestion, PacifiCorp hopes that Ecology will seek that authority expeditiously

Response:
Ecology is planning to provide opportunity for review of the draft conditions of the 401 water quality certifications.

Pacificorp

77. Comment:

Pg. 9. Ecology should encourage negotiated settlements of hydroelectric relicensing issues.

Ecology supports negotiated settlements of hydroelectric relicensing issues, and PacifiCorp appreciates the efforts that Ecology has made to participate in settlement negotiations, notwithstanding its budgetary and other resource constraints. There are several additional measures, however, that Ecology could take to further support negotiated settlements. These measures would not require the expenditure of Ecology resources and, indeed, could substantially reduce Ecology's workload and allow it to better allocate those limited resources.

Response:

We agree. Ecology staff will be part of the appropriate FERC-process negotiations as agency priorities dictate.

The best approach is for Ecology to participate in the appropriate negotiations from the beginning; and Ecology will, if possible. While participation in the fishery and other resource negotiations would assure everyone involved that limiting water quality concerns would be part of the deliberations, Ecology may not participate in all of these meetings. More often, Ecology would consider participating in targeted meeting that address water quality and flow issues. Ecology would encourage applicants to form issue groups to include both water quality and flow issues in one meeting. The decision to participate is made by the regional manager who will sign the water quality certification. This is usually, but not always, the water quality regional section manager.

The following bullet has been added on page 12 for the initial consutation phase, "How the parties will address the relationship of negotiated agreements to 401 conditions."

Pacificorp

78. Comment:

Pg. 16. Ecology's decision in response to a certification request should be limited to a certification as authorized by section 401 of the Clean Water Act; Ecology should not also issue the certification as a separately enforceable administrative order under RCW 90.48.

The draft guidance reflects Ecology's current practice of issuing certifications as independently enforceable administrative orders under RCW 90.48. As discussed in PacifiCorp's comments on the preliminary draft guidance, however, the Federal Power Act (FPA) preempts state regulation of federally licensed hydroelectric facilities, except as otherwise authorized by federal law. One such exception is the certification requirement contained in CWA section 401, which also requires that state certification conditions be incorporated into federal licenses for a project, including new FERC licenses. Section 401, however, does not authorize direct state regulation of FERC-licensed hydroelectric facilities. For that reason, PacifiCorp respectfully submits that the

practice of issuing certifications as state-enforceable administrative orders under RCW 90.48 is preempted by the FPA.

More to the present point, however, Ecology's practice makes negotiated settlements of new FERC hydroelectric licenses more difficult. Such settlements often include very substantial commitments of funds to enhance water quality, recreational opportunities, fish and wildlife habitat, and other improvements in return for the regulatory certainty provided by a new FERC license that may have a term of 30 to 50 years. In this context, Ecology's issuance of a section 401 certification as an administrative order that Ecology deems to be independently amendable and enforceable under state law creates a significant amount of long-term regulatory uncertainty for FERC licensed hydroelectric projects. This uncertainty; in turn, makes it much more difficult for project owners to make substantial long-term commitments as part of negotiated settlements. Ecology could do much to foster negotiated settlements of new hydroelectric licenses by changing its present practice and not issuing certifications as state administrative orders under RCW 90.48 that purport to directly regulate hydroelectric facilities.

Response:
Ecology issues water quality 401 certifications as state enforceable administrative orders. Ecology will continue to rely on FERC to incorporate 401 water quality certification conditions and to enforce those conditions. Ecology will maintain the right to enforce existing orders or issue further orders and to enforce them if needed. If Ecology were to consider enforcement, before taking enforcement action our agency would consult and coordinate with FERC and others who may be affected.

The following sentence has been added, "Ecology will strive for consistency between federal and state requirements and timelines."

Pacificorp
79. Comment:
Pg. 17. General certification conditions should be carefully drafted to balance Ecology's need to be able to address substantial future changes in the law or circumstances with the need to provide long-term regulatory certainty that encourages negotiated license agreements.

As discussed in PacifiCorp's comments on the preliminary draft guidance, the general certification conditions set forth on page 17 of the current draft would create long-term regulatory uncertainty for hydroelectric facilities. PacifiCorp recognizes that mechanisms are needed to address substantial future changes in the law or circumstances, but such mechanisms should be balanced with reasonable assurances of long-term regulatory certainty to encourage negotiated license agreements. Some of the means of achieving that balance might include:

(i) Limit the reasons for changes in certification conditions that impose additional requirements to new regulatory requirements or significant new information that was not reasonably available when the certification was issued. In addition, limit these changes to circumstances in which continued operation of the facility under existing certification

conditions would pose a substantial threat to designated beneficial uses or other protected resources.

(ii) Avoid vague, general conditions, such as "comply with water quality standards," which are subject to changing interpretations and thereby create future regulatory uncertainty. I nstead, identify the specific actions that are to be implemented or the specific water quality or resource goals that are to be achieved.

(iii) As discussed above, issue certifications as certifications under section 401, not as state administrative orders that purport to directly regulate FERC licensed hydroelectric facilities. A single regulatory authority would minimize future regulatory uncertainty while still allowing Ecology to modify certification conditions and petition FERC to incorporate the modified conditions into the FERC license for the facility.

Response:
Ecology understands the need of the applicant to have a measure of predictability in order to continue to operate. Ecology staff who develop certification conditions strive as much as possible to include specificity in the actions and the timing of those actions that the utility will be expected to take toward meeting water quality standards.

The following language has been added under Chapter 2, *What to Expect in a 401 Certification*, "Certifications will contain, as much as possible, the specific actions that are to be implemented and refer to the specific water quality or resource goals that are to be achieved." However, we will continue to include certain general conditions to protect water quality.

Ecology will strive for consistency between federal and state requirements and timelines. There are at least two statutory bases for active implementation of the water quality standards in respect to federally licensed dams: the conditions found in the FERC license and Washington's statute, 90.48, the Water Pollution Control Act. The state issues water quality certifications as state administrative orders. Ecology will continue to rely on FERC to incorporate 401 water quality certification conditions and to enforce those conditions. Ecology will maintain the right to enforce existing orders or issue further orders and to enforce them if needed. If Ecology were to consider enforcement, before taking enforcement action our agency would consult and coordinate with FERC and others who may be affected.

Pacificorp
80. Comment:
Pg. 14. Certification should be waived in appropriate circumstances, which could include a negotiated license agreement to which a broad range of governmental and nongovernmental stakeholders are parties and that protects designated beneficial uses.

Page 14 of the draft guidance states that Ecology may choose to waive its certification authority if little potential for harm to beneficial uses is apparent, if Ecology lacks the resources to evaluate a request for certification, or for other reasons that are not specified in the draft. A negotiated license agreement is an additional circumstance in which PacifiCorp would urge Ecology to consider waiving its certification authority.

Obviously, a waiver would not be appropriate for every negotiated license agreement. But if the agreement includes a broad range of entities, such as relevant federal and state resource agencies, tribes, and environmental organizations, and if the agreement's provisions protect designated beneficial uses, the certification process would likely add little or nothing of value to the settlement agreement. By waiving certification in such circumstances, Ecology could make better use of its extremely limited resources, while eliminating for other parties the delay, expense, and uncertainty of the certification process.

Response:
Ecology will consider negotiated agreements when writing water quality certification conditions. If the utility and those involved in licensing negotiations have provided Ecology with sufficient information so we can identify and work out potential conflicts early on, negotiated agreements should not conflict with, and may at times be incorporated into water quality certification requirements. Nevertheless, Ecology does not intend to waive certification authority on the basis of settlement agreements.

The last two sentences of the fifth paragraph on page 14 have been replaced with, "Ecology plans to never waive its authority if it has substantial environmental concerns. "

Pacificorp
81. Comment:
Pgs. 12 & 14. Ecology should issue a certification that is consistent with a negotiated settlement agreement to the extent that the settlement agreement is consistent with Ecology's legal obligations.

Although certification decisions must satisfy applicable legal criteria, Ecology nonetheless has substantial discretion within the framework of those criteria to make certification decisions and establish certification conditions. For hydroelectric projects that Ecology deems waiver of certification to be inappropriate, PacifiCorp urges Ecology to exercise its discretion to ensure that certification decisions are consistent with the terms of negotiated license agreements if a broad range of entities are parties to the agreement. Negotiated agreements represent a careful balance of environmental, recreational, social, and economic interests and usually provide more direct and more immediate public benefits than could otherwise be obtained. These benefits could be lost if Ecology establishes certification conditions that impose obligations that are in addition to, or inconsistent with, the terms of the settlement agreement.

Response:
Agreed. Water quality certification compatibility with settlement agreements is important. The applicant and other parties involved are advised to identify crucial discussions where conflicts with water quality may exist and provide Ecology with early opportunities for involvement.

Pacificorp

82. Comment:

Pg. 4. The water quality standards adopted in 2003 may be applicable standards for section 401 certification even though EPA has not yet approved the standards.

Ecology substantially revised Washington's water quality standards inJuly 2003. EPA, however, has not yet approved the revisions under section 303 of the CWA. For purposes of section 303, then, the earlier version of the standards (the "1997 standards") are the applicable water quality standards. The draft guidance states (at page 4), "Until [the revised standards] are approved, 401 certifications and other water quality permitting programs will rely on the earlier 1997 water quality standards, although actual certification conditions will attempt to incorporate both sets of water quality standards."

PacifiCorp urges Ecology to clarify further how it will use the 2003 standards in section 401 water quality certifications. In addition, PacifiCorp believes that the 1997 standards are of more limited applicability to certification decisions than the draft guidance states. PacifiCorp's understanding of the applicability of the 1997 and 2003 standards to certification decisions is as follows.

CWA subsection 40 1(a) provides: "Any applicant for a Federal license or permit to conduct any activity.., which may result in any discharge . . . shall provide the licensing or permitting agency a certification from the State in which the discharge originates.., that any such discharge will comply with the applicable provisions of sections 1311, 1312, 1313, 1316, and 1317 of this title [CWA sections 301, 302, 303, 306, and 307]." (Emphasis added.) Thus, the certification itself is that the *discharge* associated with a hydroelectric project will comply with CWA section 303, among others. Section 303 includes EPA-approved state water quality standards. In Washington, those standards are the 1997 water quality standards until and unless EPA approves the 2003 revisions, at which point the 2003 standards would become the applicable water quality standards under section 303. At present, then, a certification issued by Ecology is a certification that the hydroelectric project's discharges comply with the 1997 standards.

Ecology's authority to place conditions on a certification is found in CWA subsection 401(d): "Any certification...shall set forth any effluent limitations and other limitations, and monitoring requirements necessary to assure that any applicant. . . will comply with any applicable effluent limitations and other limitations, under section 1311 or 1312 of this title, standard of performance under section 1316 of this title, or prohibition, effluent standard, or pretreatment standard under section 1317 of this title, *and with any other appropriate requirement of state law. . . .*" (Emphasis added.) Three differences between the certification authority under subsection 401(a) and the certification conditioning authority under subsection 401(d) are significant. First, whereas the certification under subsection 40 1(a) applies only to the "discharges" associated with a project, the authority to condition a certification under subsection 401(d) applies to the "applicant." Based on this difference, the U.S. Supreme Court has held that certification conditions may be applied to the entire hydroelectric project. *See PUD Na 1 v Washington Dept* of Ecology**,** 511 U.S. 700, 711-12 (1994). Second, although CWA section 303, which includes

requirements for EPA-approved water quality standards, is listed in subsection 401(a), it is omitted from subsection 401(d). Therefore, Ecology's conditioning authority does not directly include EPA-approved water quality standards under section 303.~ Third, while the certification authority under subsection 401(a) is limited to the five CWA sections listed in that section, the conditioning authority under subsection 401(d) extends to "any other appropriate requirement of state law." Whatever the scope of the phrase "appropriate requirement of state law" is, the phrase includes state water quality standards, *see PUD Na 1,* 511 U.S. at 713, and there is no provision in subsection 401(d) that mandates that such requirements be approved by EPA.

In PacifiCorp's view, then, the 1997 standards are relevant only to the discharges associated with a hydroelectric project, not to the other aspects of the project that are within Ecology's certification conditioning authority under subsection 401(d). Conditions applied to the other aspects of a project should be based on the 2003 standards.

Response:
Ecology can condition water quality certifications based on EPA-approved water quality standards and any other appropriate state law. Water quality standards adopted into state regulation but not approved by EPA may be used if they are equally or more protective of water quality than the federally approved water quality standards.

Pacificorp
83. Comment:
Pg. 24. For a reservoir that is classified as a "lake", "natural conditions" are the conditions that result from the existence and operation of the reservoir

The draft guidance, at page 24, discusses the application of water quality standards to reservoirs with a mean detention time of more than 15 days: Reservoirs with a mean detention time of greater than 15 days are considered as lakes under the water quality standards. The water quality standards for lakes are often based on maintaining natural conditions, but the fact is the dam and the "lake" behind it are not natural... . To address this situation the certification should focus on achieving the highest attainable water quality conditions within a reservoir. This goal is most consistent with the water quality standards and the state's water pollution control laws. This is because achieving the highest attainable quality in a reservoir is essentially the same as maintaining a natural lake in its highest natural state of quality.

As the draft guidance notes, the concept of "natural conditions" is not readily applicable to a water body that is itself artificial. PacifiCorp, however, has two concerns with the draft guidance's equation of "natural condition" with "highest attainable water quality condition." The first concern is that it is not readily apparent what "highest attainable water quality condition" means. For example, changes in reservoir operations to improve a water quality characteristic or to benefit certain designated uses will often have adverse effects on other water quality characteristics or uses. In such circumstances, it would be difficult or impossible to determine the highest attainable water quality condition.

The second concern is that achieving the "highest attainable water quality condition" is not akin to maintaining a natural lake in its highest natural state of quality. The "natural condition" of a natural lake is the condition in which the lake would be found without human-caused changes. By analogy, the "natural condition" of a reservoir is the condition in which the reservoir would be found without human-caused changes unrelated to the existence and operation of the reservoir. For example, water quality changes that result from the thermal stratification of both natural lakes and reservoirs are part of the "natural condition" of these water bodies. If the surface of a natural lake were naturally warm, Ecology would not construe the water quality standards to require mixing of the surface water with cooler waters at depth in order to achieve the "highest attainable water quality condition" within the lake. The same should be true for the surface of a reservoir that is "naturally" warm.

Response:
Dam owners can improve or worsen water quality significantly through the operation of the reservoir, thus it would be inappropriate for Ecology to take the position that whatever water quality is produced through the design and operation of a hydropower facility is natural. A water quality certification can contain a compliance schedule that requires all known reasonable and feasible steps be taken to improve water quality. The goal is to improve the water as much as is reasonably and feasibly possible. The requirement to achieve the highest attainable water quality within these reservoirs reflects the requirements in the water quality standards for lakes and reservoirs - where human effects are generally not allowed to cause any substantial changes from natural conditions. And this requirement is written the way it is because of the recognition that the reservoir itself is not a natural condition.

Highest attainable water quality condition means doing everything that can feasibly be done to improve the water quality. Achieving the "highest attainable water quality condition" is akin to maintaining a natural lake in its highest natural state of quality. It is done by ensuring that both applicants and lake owners do everything that is reasonable and feasible to improve water quality. Ecology is working on UAA guidance that will better define this process.

Pacificorp
84. Comment:
Pg. 23. Certification decisions should give primacy to the protection of designated uses; if numeric water quality criteria are inconsistent with or are unnecessary to protect designated uses, Ecology should take appropriate steps to protect designated uses.

Numeric water quality criteria are adopted to protect designated uses, but the criteria are usually adopted on a statewide or other broadly applicable basis that may not reflect the specific needs of designated uses within a particular water body or stream segment. The wealth of information regarding the needs of fish and other designated uses that is generated in conjunction with the relicensing of a hydroelectric project offers an opportunity to consider the specific water quality needs of these uses. In circumstances in which the existing numeric criteria are inconsistent with or unnecessary to protect the

specific designated uses in waters influenced by a project, Ecology's certification decision should give primacy to the designated uses, and Ecology should take appropriate steps to adjust the numeric criteria accordingly. This approach is consistent with the recent decision of the Pollution Control Hearings Board in *Confederated Tribes of the Umatilla Indian Reservation v Ecology* (PCHB No. 03-075) (April 21, 2004).

Response:
The water quality numeric criteria are developed to protect designated uses. They are used as the primary attainment goal. If they cannot be met after the applicant has exhausted all reasonable methods, then tools are found in the water quality standards that allow for alternative criteria to be developed, provided that the uses do not suffer. We explain these tools in the guidance.

Ecology has written sufficient language in the 2003 proposed water quality standards to address outcome based concerns. The language was developed through involvement with the public, including much input from utilities. This language, under *Compliance Schedules for Dams*, directs the applicant to make a good effort to meet water quality criteria. If the criteria have not been achieved after a period of time, only then will we consider the water quality tools as a means of developing alternative criteria.

Pacificorp
85. Comment:
Pg. 2. The current draft of the guidance has been revised to reflect recent changes in FERC's rules on the deadline for submitting section 401 certification requests, but some statements based on the earlier version of the rules appear to have been overlooked. FERC has summarized the effect of the rule changes on certification request deadlines as follows: "In the integrated, traditional, and alternative [licensing] processes, effective for applications filed on or after October 23, 2003, the water quality certification application must be filed no later than 60 days following issuance by the Commission of the notice requesting terms and conditions. In the integrated and traditional processes that will also be the notice that the application is ready for environmental analysis." 69 Fed. Keg. 5268, 5271 (Feb. 4, 2004). The remaining statements in the draft guidance that appear to be inconsistent with FERC's revised rules are at page 2, paragraph 4, and at page 13, last paragraph.

Response:
The language has been changed to make the statements about the application filing date to be consistent with, "a request for a 401 water quality certification must be filed no later than 60 days following issuance by the Commission of the notice of Ready for Environmental Analysis document.

Pacificorp
86. Comment:
Pg. 3. On page 3, paragraph 3, of the draft guidance, the scope of the section 401 certification authority is overstated. The draft states: "[Section 401 of the CWA requires that applicants for a federal permit or license that involves any discharge to the nation's

waters request a certification (401 water quality certification) from the state where the discharge originates that the proposed activity will meet applicable state water quality standards and other *applicable* requirements of state law." (Emphasis added.) Two aspects of this statement are inconsistent with section 401. First, section 401 does not require certification of compliance with state law it requires only certification of compliance with CWA sections 301, 302, 303, 306, and 307. CWA subsection 40 1(a) provides: "Any applicant for a Federal license or permit to conduct any activity.., which may result in any discharge. . . shall provide the licensing or permitting agency a certification from the State ... that any such discharge will comply with the applicable provisions of sections 1311, 1312, 1313, 1316, and 1317 of this title [CWA sections 301, 302, 303, 306, and 307].~~6 Second, if Ecology certifies the project under subsection 401(a), it may condition the certification as necessary to ensure compliance with specified sections of the CWA and with "any other *appropriate* requirement of State law." (Emphasis added.) The subsection refers to "appropriate requirements of State law," not "applicable requirements of State law." "Appropriate" requirements of state law in this context are limited to those that are "related to water quality," and do not include every requirement of state law that might be applicable to the certified project.[7] Sa~ *Department of Ecolovy v PUD No 1,* 121 Wn.2d 179, 192 (1993).

Response:
You are correct. The guidance has been changed to read, "…the CWA requires that applicants for a federal permit or license that involves any discharge to the nation's waters request a certification (401 water quality certification) from the state where the discharge originates that the proposed activity will meet applicable state water quality standards and other *appropriate* requirements of state law."

Ecology views "appropriate" as laws directly supporting water quality standards and equally or more stringent than the standards. One situation where this may be appropriate could be to include the state adopted 2003 water quality standards. These standards are not yet federally approved but have been adopted into state law. Another may be drinking water standards for reservoirs that also serve as drinking water supply.

Pacificorp
87. Comment:
Pg. 10. Certification Process flow chart. The certification process flow chart in the draft guidance appears to be incomplete. For example, the chart appears to make Ecology's certification decision turn entirely on whether Ecology receives new information while a certification request is pending. If new information is received, the chart would require the applicant to withdraw and resubmit its request; if new information is not received, Ecology would issue the certification. PacifiCorp assumes that Ecology does not intend that a request be withdrawn whenever Ecology receives new information about a project.

In addition, PacifiCorp reiterates the concerns that it expressed above regarding the inability of applicants and the public to comment on proposed certification decisions. PacifiCorp hopes that Ecology will initiate a process for commenting on proposed certification decisions and will incorporate that process into the chart.

Response:
The chart has been changed to reflect your comment. Ecology does not intend for the certification request to be withdrawn everytime new information is received. If sufficient information is not available within a year of receiving the application, the applicant will have to withdraw the application and reapply to start the one-year clock if they still want to pursue a certification. Otherwise, Ecology will usually have to deny the water quality certification.

Ecology is planning to provide opportunity for review of the draft conditions of the 401 water quality certifications.

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Grant PUD
88. Comment:
Under any of the FERC processes, relicensing a hydropower project is a complex proposition involving many different stakeholders and interests considering how to balance resource and power needs with measures to address project effects. Grant PUD spent years and millions of dollars undertaking field work, studies and collaborative discussions with stakeholders to develop balanced protection, mitigation and enhancement proposals for relicensing the Priest Rapids Project. The measures Grant PUD has proposed, which include specific resource protection agreements, consider power impacts as well as multiple resource considerations, and are aimed at addressing Priest Rapids Project effects on environmental resources while preserving and enhancing the power value of the Project. The potential for a water quality certification to disrupt the balance or redirect the resource benefit intended to result from those negotiations and executed agreements is a serious concern to entities and individuals who spent years negotiating them. We are now concerned that the terms of those agreements will be rendered less effective or even null by virtue of conflicting water quality certification terms and urge WDOE to seriously consider the implications of such actions for disrupting and perhaps discouraging settlement efforts in the relicensing process.

Grant PUD's proposed 800 million dollars in commitments for environmental protection, mitigation, and enhancement measures are described in the Final License Application for the Priest Rapids Project. It is also nearing completion on a Settlement Agreement for Wanapum and Priest Rapids dams for listed and non-listed anadromous salmon and steelbead providing greater protection to beneficial uses than would be required under the Clean Water Act.

In its proposal for relicensing the Project, Grant PUD has integrated the measures to achieve the performance standards for existing beneficial uses with measures to achieve applicable water quality standards. Central among the operational issues that will be before the Priest Rapids Coordinating Committee ("PRCC") to be established under the Settlement Agreement are fish passage, spill, gas abatement and other water management issues for purposes of aiding the migrations of juvenile and adult salmon and steelbead. Through the PRCC, Grant PUD will coordinate as appropriate the design and

implementation of research and monitoring programs, the sharing of data and information, and the conduct of other activities to promote efficiencies and the use of best available scientific information and analysis in the implementation of the measures intended to achieve the goals of the Agreement. To avoid potential conflicts through additional or different terms, Grant PUD urges WDOE to actively participate in the PRCC as a party to the Settlement Agreement.

Response:
We will address the compatibility of negotiated agreements with water quality criteria on a project-by-project basis with your concerns in mind. The following language has been added, "Ecology and the Washington Department of Fish and Wildlife will work together after the guidance is finished to resolve procedural conflicts concerning negotiated agreements and 401 water quality certification conditions."

Responsibility rests not only with Ecology. Participants in the collaborative licensing negotiations should provide information and notify Ecology of potential conflicts early. Ultimately, the strength of the agreements may rest on compatibility with water quality standards. At the same time, Ecology will retain its authority to write conditions that differ from these agreements if necessary. Ecology encourages parties to strive for agreements that will make this unnecessary.

Grant PUD
89. Comment:
Pg. 17. Grant PUD appreciates Ecology's commitment to achieving consistency between the 401 conditions and long term settlement agreements reached among the licensee, fishery agencies and NGOs (See Chapter 2, p. 9). As noted earlier, often the settlement agreements involve long-term commitments by the licensee that provide important public benefits that go beyond mere legal requirements to achieve regulatory certainty. These agreements are reached after extensive discussions with resource agencies, tribes and NGOs to achieve a careful balance of resource protection measures. However, the Guidance describes general conditions to be included in all certifications that will allow for subsequent modifications to and/or new interpretations of 401 certification conditions.

These general conditions described in the Guidance would discourage negotiated license agreements and commitments to undertake substantial environmental protection, mitigation, and enhancement measures. This is because, under the general conditions, additional, post-license requirements could be required by changes in water quality standards (or changes in interpretations of water quality standards), changes in other water quality requirements (such as undefined requirements of TMDLs to be developed in the future), or changes in circumstances, notwithstanding that the goals for protection of designated uses are being attained.

We understand that Ecology recognizes that <u>substantial</u> changes in the law or circumstances whether environmental, social, or economic—may require changes in the measures that a project implements to protect water quality, a balance needs to be struck between (I) the long-term certainty that encourages negotiated license agreements and

commitments to undertake environmental measures and (2) the ability to address substantial changes in the law or circumstances since the certification was issued. There are several ways in which that balance might be achieved:

(a) Rather than relying on general, open-ended language requiring compliance with "water quality standards" which are subject to changing requirements and interpretations, the certification should specify the water quality measures to be implemented and the specific water quality and other resource goals that the facility is to achieve. The specific measures are often identified in the certification and the resource goals will usually be described in an adaptive management process.

(b) The certification should provide that Ecology may initiate a modification of the certification, based on new regulatory requirements or significant new information, if continued operation of the facility under the existing certification conditions would pose a substantial threat to a designated beneficial use and if that threat was not reasonably known when the certification was issued.

(c) Ecology should not issue certifications for FERC-licensed hydroelectric facilities as independently and therefore unilaterally enforceable state administrative orders when the measures to be implemented are coordinated through a number of administrative agencies and Ecology will necessarily rely on the expertise of those agencies in evaluating compliance with the various resource protection goals. When consensus is achieved among the various resource agencies to change the measures or resource goals, Ecology could also join in such petition to the FERC to modify 401 certification conditions without also having to modify a separate administrative order.

(d) The general conditions should also identify applicable procedural protections to licensees prior to a modification, including but not limited to, coordination with other fishery agencies, substantial evidence, use of best available science, notice and an opportunity for hearing and other appropriate equitable limitations.

Response:
Ecology understands the need of the applicant to have a measure of predictability in order to continue to operate. Ecology staff who develop certification conditions strive as much as possible to include specificity in the actions and the timing of those actions that the utility will be expected to take toward meeting water quality standards.

The following language has been added under Chapter 2, *What to Expect in a 401 Certification*, "Certifications will contain specific conditions with reference to the water quality improvement goals that are to be achieved. However, certain general conditions will be necessary."

Ecology will strive for consistency between federal and state requirements and timelines. There are at least two statutory bases for active implementation of the water quality standards in respect to federally licensed dams: the conditions found in the FERC license and Washington's statute, 90.48, the Water Pollution Control Act. The state issues water

quality certifications as state administrative orders. Ecology will continue to rely on FERC to incorporate 401 water quality certification conditions and to enforce those conditions. Ecology will maintain the right to enforce existing orders or issue further orders and to enforce them if needed. If Ecology were to consider enforcement, before taking enforcement action our agency would consult and coordinate with FERC and others who may be affected.

Grant PUD
90. Comment:
Pg. Ecology's decision in response to a certification request should be limited to a certification as authorized by section 401 of the Clean Water Act; Ecology should not also issue the certification as an administrative order under RCW **90.48.**

Section 401 of the Clean Water Act does not authorize states to directly regulate the discharges and activities that are subject to the certification requirement. Although a state certification is a prerequisite to the issuance of certain federal licenses and permits, and although any conditions on the certification become conditions on the federal license or permit, the certification itself is not a permit or other independently enforceable order. Until the conditions of a certification are incorporated into a federal license or permit, the conditions are not enforceable.

For hydroelectric facilities licensed by FERC, the practice of issuing certifications as administrative orders raises substantial questions of preemption under the Federal Power Act. While Section 401 authorizes a state to impose certification conditions on FERC and other federal licenses and permits to ensure that the licensed or permitted facility complies with certain provisions of the Clean Water Act and of state law, but section 401 does not authorize direct state regulation of *any* facility. Nor has Congress otherwise authorized states to issue administrative orders or take enforcement actions, such as those authorized by RCW 90.48, against FERC-licensed facilities. Indeed, the Federal Power Act preempts direct state regulation of these facilities.

Response:
There are at least two statutory bases for active implementation of the water quality standards in respect to federally licensed dams: the conditions found in the FERC license and Washington's statute, 90.48, the Water Pollution Control Act. The state issues water quality certifications as state administrative orders. Ecology will continue to rely on FERC to incorporate 401 water quality certification conditions and to enforce those conditions. Ecology will maintain the right to enforce existing Orders or issue further Orders and to enforce them if needed. If Ecology were to consider enforcement, before taking enforcement action our agency would consult and coordinate with FERC and others who may be affected.

The following language has been added, "Ecology will strive for consistency between federal and state requirements and timelines."

Grant PUD

91. Comment:

Pg. 14. When Adequate Information Exists to Issue a 401 Certification, Ecology's should not wait for issuance of the FERC NEPA document. The Guidance document contains a good discussion of the need to coordinate early on in the information gathering process to avoid potential delays. After the information is collected and a water quality attainment plan has been prepared, the need to defer issuance of the 401 certification until FERC completes it environmental analysis under NEPA seems unwarranted. The Guidance process appears to lack any meaningful discussion of what specific information would be necessary that could only be obtained from the FERC NEPA process and what steps the Department could take to gather such information in advance of the NEPA analysis.

At page 3, Ecology states that "it will have an opportunity to comment under NEPA, which brings in environmental issues beyond water quality, such as air pollution during construction." The Guidance should explain how that issue might arise, be evaluated, what criteria would be applied or how it may be addressed in a cost effective manner. As a practical matter, air quality issues seldom arise in the renewal of an existing project and would not normally be a realistic basis for comment in most NEPA processes.

Ecology has issued 401 certifications without waiting for an EIS to be completed on several occasions. In one case, Ecology requested that FERC delay the NEPA process until settlement negotiations were completed so that FERC might consider in its NEPA analysis the settlement and agreed upon 401 terms and conditions.

In support of this practice, the Guidance document states that the SEPA analysis is in many respects analogous to the federal NEPA process but that SEPA review is not required for issuance of the 401 certification unless some other permit requiring SEPA review is necessary. However, frequently there is no required CZMA consistency determination or other equivalent state permit requiring an environmental analysis. In that circumstance, the basis for deferring issuance of a 401 certification until completion of the NEPA process and requiring withdrawal and refiling of a 401 application appears to be an unnecessary precondition if not inconsistent with state law.

Moreover, FERC declined to adopt a rule that would have deferred receipt of the 401 until after the NEPA process is completed because of the uncertainty and likelihood of delay in issuing a subsequent license. The avoidance of unnecessary preconditions, and consequent delays, to license renewals is important to license applicants because of the time, expense and personnel required during this process. Ecology should make it clear that it will timely issue 401 certifications when it has all necessary information even though the NEPA process has not been formally concluded.

Response:

Ecology does not want to delay a license because of insufficient information. We will attempt to gather the necessary information prior to the time the certification is due and will continue to issue the certification in coordination with other environmental review.

However, the agency wants to continue to rely on information in a NEPA document. We think that the guidance contains sufficiently flexible language for Ecology to decide if NEPA information may not be needed. This decision will be left up to the regional water quality certification manager. The following language has been added, "NEPA documents frequently provide valuable and objective scientific analysis on compliance with water quality standards. Especially information on project effects on designated uses."

Grant PUD
92. Comment:
Pgs. 9-11. Ecology's Request For Funding Should Be Eliminated Absent Commitments by the Department to Adhere to Established Licensing Schedules. Although 33 USC 1341 states that the 401 certification shall be issued within a reasonable time, not to exceed one year, the Guidance document states that an applicant may have to withdraw and reapply a number of times, depending on the issues and the timing of the NEPA analysis. Even with additional funding Ecology reserves the right to not participate in settlement discussions even though settlement of issues is pursued by nearly all licensees. (Draft Guidance at page 11.) The Department's policy of routinely side-stepping the statutory deadline by seeking withdrawal and refiling of the 401 application will serve as a disincentive to utilities to support funding of additional staff who desire the process be completed in a timely manner.

Response:
Adherence to licensing schedules can be made as a condition of an agreement to fund water quality certification activities, whether it is for staffing or for consultants to do the work. It would however, constitute a conflict of interest to have any agreement that Ecology will certify that a project will meet water quality standards or that Ecology will have enough information to make a decision at the time the certification is due.

Grant PUD
93. Comment:
Water Quality Enhancements Maybe Considered under the Aquatic Resources Mitigation Act. The entire focus of the discussion Chapter 3, Section 2 is on possible causes of impairment to either water quality or the designated uses. Because the Clean Water Act expressly recognizes the authority of state certifying agencies to include conditions that address "any other appropriate requirement of state law" through the Section 401 process (33 USC 134 1(d)), Ecology may exercise discretion under the Washington State Aquatic Resources Mitigation Act to recognize the restoration, creation, enhancement, or preservation of uplands, wetlands or other aquatic resources, when the mitigation plan provides equal or better biological functions and values, compared to the existing conditions.... RCW 90.74.010(2). This statute allows Ecology to consider equal or better biological functions and values, compared to the existing conditions but there is no recognition of this statute in the Guidance document.

The Guidance document should be revised to include a discussion of this statute and examples where water quality enhancements have been observed. Such enhancements are

distinguishable from an offset, where an improvement is sought upstream of the project to offset a condition downstream. In many instances, the project improvement will result in a benefit over existing conditions and it may provide an alternative basis for issuance of the 401 under the Aquatic Resources Mitigation Act, RCW 90.74. Examples of enhancements include improved wildlife habitat; recreational use; elevated Dissolved Oxygen levels; lower TDG levels than background or forebay conditions; improved turbidity, increased spawning habitat; flood control and water supply benefits.

Response:
Ecology recognizes the benefits of trading for better conditions offsite or trading on site the water quality criteria in question for different improvements. However, the Clean Water Act does not allow this to count toward certainty of meeting water quality standards.

Grant PUD
94. Comment:
Pg. 20. There is no reference to the authority for the statement that the applicant should analyze the uses that do not currently exist, but also uses that would be available without the project. It is clear, however, that the state water quality standard in WAC 173-201A-070(l) provides for the protection of existing beneficial uses. Moreover, the legislative history to the Clean Water Act reflects intent to protect a "balanced, indigenous population" of fish and wildlife which means the assemblage of organisms that is growing or living in the water now, not during some historical period prior to major development.

Similarly, the Ninth Circuit Court of Appeals has recently stated that "attempting to re-create natural river conditions defied common sense and pragmatism as a basis for making present day development decisions". In American Rivers v. FERC, 187 F.3d 1007 (9~ Cir. 1999), the Court expressly rejected the contention that the baseline for evaluating impacts from relicensing the Leaburg-Walterville Project on the McKenzie River in Oregon State should be the "natural river" conditions that existed some 50 years ago, before the Project was constructed

Response:
The intent in the Clean Water Act to protect a "balanced, indigenous population" is an interim goal. The long-term goal of the CWA is to remove all sources of degradation. Thus restoration is the ultimate goal of the Act. State and federal water quality regulations require that all existing fishable-swimmable uses and all attainable designated uses be protected [40 CFR 131.10]. The guidance directs the identification and protection of existing and attainable designated uses. Uses that have not existed since 1975 (which set the bar for defining existing uses) and uses that do not exist and are not designated in the water quality standard need not be identified for protection. For example: dam operations may have placed all reservoir water during the life of the old license through pipes to turbines situated miles downstream, thus dewatering salmon rearing and spawning habitat. If the dewatered river is designated for salmon rearing and spawning, the utility would be expected to determine whether or not the designated

beneficial use could be protected by providing sufficient flows. Another example: Fifty years ago, when a dam was built, reservoir conditions heated the water and changed the flow to the point where salmon cannot spawn. The reservoir is not designated for salmon spawning. The utility would not be expected to meet salmon spawning temperature criteria nor meet the flow requirements necessary for salmon to spawn since in this case the use was lost prior to 1975 (not an existing use) and is not a designated use in the state standards. Regarding the court decision on the Snake River dams, the court also said that the Corps needs to pursue everything they can do to improve water quality and try to meet the water quality standards shy of bypassing the federal dams.

Grant PUD

95. Comment:

Public Participation in the Certification Process Should Be Clarified.

WAC 173-225-030 provides for public notice of, and an opportunity to comment on, a section 401 certification *application.* At that time, the applicant's plans are set forth in detail in its final license application on file with the FERC and have undergone numerous opportunities for public comment which include, comment on technical resource studies, development of the conditions, comment on the draft license application, and comment on the environmental analysis. These comments are evaluated based on their scientific merit and decisions among participants are based on years of research. Additional opportunities for public comment on a draft *401 decision* could serve to minimize the importance of the previous comment periods.

Public notice on the draft 401 *decision,* however, may be appropriate when the 401 decision is materially different from the applicant's plans and protection mitigation and enhancement measures or settlement agreement. Alternatively, public notice of a 401 decision may be appropriate when Ecology intends to use its 401 authority to craft a site-specific water quality standard, such as when long term commitments for the protection of beneficial uses al-c relied upon as an alternative to nominal numeric criteria.

Response:

We agree that the application to FERC should contain the necessary information to make water quality certification decisions. In a perfect world, 401 certification conditions would already be contained in the FERC application; arriving at 401 certification conditions would be a cut and paste exercise. However, in addition your reasons for public involvement, further involvement by interested parties in the development of 401 certification decisions is always needed for several varying reasons:

- The license application contains insufficient information in the supporting documents;
- The 401 water quality certification application contains insufficient information in the supporting documents;
- Ecology may have decided not to participate in settlement negotiations. The resulting lack of information is often exacerbated by a lack of communication by negotiators with Ecology on potential water quality impacts of negotiated conditions;

- Final draft conditions may contain factual errors that the utility can correct
- Final draft conditions may conflict with negotiated settlements
- Final draft conditions may be adjusted to better fit with existing plans.
- If a draft was not shared with the public, the only option open to comment would be through the legal process.

Ecology is planning to provide opportunity for review of the draft conditions of the 401 water quality certifications.

Grant PUD
96. Comment:
Pg. 15. Ecology states that the applicant should initiate discussions with downstream jurisdictions (*e.g.*, Oregon) to determine how they want to be involved in the process. Since the 401 decision is based on compliance with water quality standards in effect at the point of discharge, consideration of the state of Oregon's water quality standards, for example, appears unnecessary.

Response:
We think that the language on page 15 sufficiently addresses this issue. The 401 certification is based on compliance with Washington State water quality standards downstream of the project, not just within project boundaries.

Grant PUD
97. Comment:
Pg. The Evaluation of Causes of Impairment Should Be Consistent with Water Quality program Policy 1-11 and applicable state law. Concerns about possible impairment should be evaluated consistent with Water Quality Program Policy 1-11 (2003). For TDG, pH and turbidity, for example, Ecology's policy guidance is based on persistence at levels in excess of the water quality standard for 10 percent of the time. Analysis is based on use of a binomial distribution with a 90 percent confidence interval, to identify whether the true exceedence percentage is greater than 10 percent. Adherence to a consistent methodology for identifying when water segments were impaired would help applicants predict when monitoring requirements or other conditions might be expected.

Additionally, there are two limitations on the causes of impairment that should be discussed in the introduction: 1) excursions arising out of the existence of the Project alone rather than discretionary operations; and 2) water quality conditions resulting from upstream of the Project. This first limitation was addressed in *National Wildlife Federation et al v. United States Corps of Engineers* (9th Cir, October 4, 2004), where the Ninth Circuit concluded that an exceedence of the temperature criteria can not be construed as a violation of the CWA when the exceedence arose out of the existence of the dams and not any discretionary operation of the Project. The second limitation is embedded in RCW 90.48.422(3) also requiring substantial evidence that the violation is due to operation of the Project.

Response:
The water quality program policy 1-11 is for a non-regulatory decision-making purpose. This is very different from the regulatory 401 certification decision-making process. The policy is part of a prioritization process whereby the agency can be reasonably sure that the water quality standards are being violated at a site. We need to be certain the water body should be on the 303(d) list before investing considerable resources evaluating how much human actions contribute to the pollution and assign responsibility for cleanup. The 401 certification is to ensure that a project meets the state's water quality standards. Water quality certifications are not supplementary policies for when the state will begin water quality studies and clean up plans. Dams are accountable for indirect effects. For example, if the dam's impoundment is the reason that incoming nutrients are causing oxygen and algae problems, we would ask the dam to do what it could to reduce this effect. This concept is to some extent embedded in the highest attainable condition concept.

Grant PUD
98. Comment:
Pg. 25. Not all turbines produce TDG at start-up and shut down; this propensity is a function of turbine design. Newer turbine designs are significantly more stable at boundary flow conditions (start up and shut down) than conventional designs. The saturated gas signal from these operations is small, as there is sufficient eddy flow to reduce highly elevated gas pressure within the tailrace.

Air injection to spin turbines with no water and no power generation: synchronous condense mode. This is not a common power operation for run-of-the-river dams on the Columbia; at present, only the larger high-head storage dams are providing transmission line stabilization by synchronous condense operation.

Response:
Air injection and spin-no-load are listed under possible sources of TDG. This information may be helpful to Ecology staff and others during initial investigations into water quality problems. Particulars about causes of gas production for turbines at each dam will quickly become apparent during licensing and certification discussions.

Grant PUD
99. Comment:
Pg. 28. Impounding the river behind the dam does not heat up more than without the dam. In fact, studies by Batelle's Pacific Northwest Labs have shown that just the opposite occurs at run-of-the-river projects. Natural, free-flowing rivers heat up more rapidly and reach higher maximums than impounded rivers because the larger mass of water takes longer to heat up. Any shift in the fall-cooling period is attributable to the larger storage projects upstream. Id. Additionally, fish ladders are usually too short in length for water temperatures to heat up so they are not measurably different than average river conditions in most cases.

Response:
You are correct; river impoundments sometimes may not have a large influence on temperature for run-of-river dams where water is constantly moving downstream. Also, you can be correct about increased heating potential of natural rivers—in a one-dimensional model.

A one-dimensional model may not reflect potentially harmful temperatures that a fish may encounter. Reservoir conditions can stratify, changing habitat and feed. Resulting colder water below can become anoxic. Fish are affected by specific, 2 and 3-dimensional temperature increases such as fish ladders, daily ramping, shallow, slow moving areas, inundation of coldwater seeps, and hot areas created by dam operations.

These are listed under possible scenarios meaning that they do not apply to every dam in all cases. Impoundments do change the thermal nature of the river/reservoir. The language has been changed to read, "Impounding the river behind the dam. *Some* reservoirs generally heat…"

Grant PUD
100. Comment:
Pg. 30. Turbidity is generally considered to be improved over natural conditions in the watershed due to the regulation of flows. Hydropower projects diminish the effect of large spring run-off conditions reducing the amount of erosion downstream and within the project area. Run-of-the-river projects maintain a fairly constant operating elevation also diminish turbidity within the project area. No monitoring of turbidity for run-of-the-river projects should be required except for construction projects affecting the riverbed.

Response:
We will require monitoring of turbidity on a case-by-case basis. Early discussions on planning for monitoring can cover the need for initial background turbidity information to indicate if a problem exists.

Grant PUD
101. Comment:
Generally, run of the river projects do not retain water long enough for plant productivity to influence pH levels of any material degree. If pH is possibly affected by low flow conditions, monitoring should be limited to summer-time low flow conditions and possibly construction projects where cement will be poured in the river.

Response:
We will require monitoring of pH/plant productivity on a case-by-case basis. Early discussions on planning for monitoring can cover the need for initial background information to indicate if a problem exists.

Grant PUD

102. Comment:

Pg. 34. The paper should attribute spill at a project as an enhancement to dissolved oxygen levels. Decreasing temperature in the reservoir should be eliminated as a possible remedial action to address low D.O. because there are no known actions a run of the river project may take to reduce overall river temperatures.

Response:

Spill at a project may enhance downstream oxygen levels, however this needs to be balanced against the affect this has on other water quality parameters and the biology of the river.

The language in the guidance specifically discusses stratified reservoirs. If the project is run-of-the-river, the water would unlikely be stratified.

Grant PUD

103. Comment:

Pg. 35. This criteria does not apply to run of the river projects because the storage time behind the dam does not qualify as a lake.

Response:

You are correct.

Grant PUD

104. Comment:

Pg. 39. The requirement to keep track of oil uses, transfers, and disposal appears reasonable, however, including references to oily rags is unnecessary. Compliance with the regulatory requirements applicable to SPCC plans should be sufficient.

Response:

Tracking oily rags is a generally accepted method of understanding oil use. Rags used to soak up oil are not disposed of in the same way as the liquid oils. We are talking about rags used to soak spilled oil, not the rags used to wipe off hands and tools. Sorbent materials are designed to clean up small and large spills both within the facility and when material gets into the water. Sorbent materials often soak up the bulk of the spilled material; they are designed to soak up to 20 times their weight in oil.

Nevertheless, because “sorbent materials” includes oil soaked rags, we have deleted the words, “oily rags”.

Grant PUD

105. Comment:

Pg. 45. Generally, dams create opportunities for recreation. This section describes possible causes of impairment as if dams were significant limitations on recreational uses when in reality the dams provide the recreational opportunities that exist in the rivers today.

Response:
The following language has been added, "While dams often create recreational opportunities, they can also create barriers to recreation. A balance must be reached."

Grant PUD
106. Comment:
Pg. 46. As with recreation, hydropower projects have maintained relatively stable operating elevations that support development of riparian zone to support wildlife habitat. The project effects should be described as an improvement in many instances.
Response:
This information will become apparent as information is collected. Any Ecology decision will have to balance beneficial and detrimental aspects. Ecology will often rely on the Washington Department of Fish and Wildlife to do so.

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Skokomish
107. Comment:
Pg. 14. Ecology should provide more detail as to when it can waive its § 401 certification authority. The Tribe is concerned about Ecology's tendency to waive this critical tool. For example, in the Cushman proceeding, Ecology improperly waived its certification authority under the Coastal Zone Management Act solely because it did not want to delay the licensing process. The Washington Court of Appeals rejected Ecology's decision. *Skokomish Indian Tribe v. Fitzsimmons*, 97 Wn.App. 84, 982 P.2d 1179 (Div. 2, 1999), *appeal denied on the merits* (Jan. 12, 2000).

Response:
The last two sentences of the fifth paragraph on page 14 have been replaced with, "Ecology plans to never waive its authority if it has substantial environmental concerns. "

Skokomish
108. Comment:
Pg. 16. The Tribe believes that twenty days is too short for the public to comment on a decision that is technical in nature and that will be effective for license terms of 30-50 years. Draft Guidance at 16. We suggest a longer period of <u>at least</u> 30 days.

Response:
The 20 day response period is specified in WAC 173-225. According to this rule, Ecology can lengthen the response period if needed. The guidance has been modified to reflect this, "Written comments are taken for a period of 20 days. Ecology will consider a longer comment period if asked."

Skokomish
109. Comment:
Pg 24. Ecology should clarify what it means by the statement on page 24, "It is important to recognize, however, that since the reservoir is not natural the discharge from

the reservoir will not be considered a natural condition and thus may not cause or contribute to an excursion from the downstream water quality standards." This statement is unclear.

Response:
If the reservoir was a natural lake instead of a human created impoundment then Ecology would consider the temperature and oxygen effects in the outflow to be natural conditions as well. So if the outflow from a natural lake was warmer than the established numeric temperature criteria, then that warmer temperature would not be considered a violation of the state standards. It would be considered a natural condition and human sources would be limited to warming that natural condition by a cumulative 0.3C. However, human created lakes - reservoirs - can be operated in ways that greatly influence the quality of the water that is released from the reservoir and the relative impact of that water on the ability of the downstream river to meet the state water quality standards. If we were to assume that anything that came from a reservoir was natural, we would be ignoring the real opportunities to design and operate dams in a manner that better protects water quality. It would also make conducting a 401 certification relatively meaningless if a state just assumes that whatever effects are caused by the dam be treated as if there were no human influences (natural). This language tries to make it clear that although we are using a narrative standard to evaluate compliance in the reservoir itself, and that narrative standard acts very much like provisions in the standards that are based on comparing to the natural condition of lakes, we are not assuming that the conditions created in a human-made reservoir is natural.

Skokomish
110. Comment:
Pg. 44. Ecology refers to meeting the "Long-term health" needs of fisheries. Ecology's draft guidance should clarify that the Treaty of Point No Point and other treaties with similar provisions guarantee harvestable levels, and require protecting and rebuilding commercially harvestable quantities of fish through proper habitat protection. *See Washington v. Washington State Commercial Passenger Fishing Vessel Ass'n,* 443 U.S. 658 (1979). NOAA Fisheries' Technical Memorandum states:

It is our policy that the recovery of salmonid populations must achieve two goals: 1) Restore salmonid populations to the point where they no longer require the protection of the ESA, and 2) restore salmonid populations to a level that allows meaningful exercise of tribal fishing rights.... (emphasis added)

Portions of NOAA Technical Memorandum NMFS-NWFSC-42, *Viable Salmonid Populations and the Recovery of Evolutionarily Significant Units* at 34 (June 2000) (available at http://www.nwfsc.noaa.gov/publications/techmemos/tm42/tm42 .pdfJ). Ecology must also meet this treaty standard. *United States v. Washington,* 384 F.Supp. 312, 403 (W.D. Wash. 1974) ("the State and its regulatory agencies must treat such treaty rights as an obligation and interest to be promoted in the State's regulatory, management and propagation programs.").

Response:
Water quality certifications focus on the state rule, the water quality standards. Protection flows for water quality standards and treaty rights may differ. Ecology will take treaty rights into account in 401 water quality certification conditions to the extent they can be reasonably and legally accommodated.

Skokomish
111. Comment:
Pg. 45. The Tribe suggests deleting the sentence, "Resolution of habitat flow problems for existing dams usually involves some balancing between flood control, recreational reservoir levels, navigation, electricity generation and competing habitat, and water quality issues." The Commission is specifically charged with balancing competing uses. 16 U.S.C. § 803(a). We are not aware that Ecology's mandate includes similar "balancing."

Response:
The sentence has been changed to read, "Resolution of habitat flow problems for existing dams usually involves some balancing between fish needs, recreation, navigation, and water quality issues."

Ecology is not mandated through the Clean Water Act, Section 401 to balance competing uses. In practice however, balancing often occurs for narrative criteria. Consider flows for fish survival. Many competing questions have to be answered to understand how to set the overall best flows such as, "What is the best flow if juvenile rearing needs are different from resident species needs which are different from adult salmon migration needs?"

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Tulalip
112. Comment:
Pg. 14. Ecology should provide more detail as to when it can waive its § 401 certification authority. The Tribe is concerned about Ecology's tendency to waive this critical tool.

Response:
The last two sentences of the fifth paragraph on page 14 have been replaced with, "Ecology plans to never waive its authority if it has substantial environmental concerns. "

Tulalip
113. Comment:
Pg.16. The Tribe believes that twenty days is too short for the public to comment on a decision that is technical in nature and that will be effective for license terms of 30-50 years. We suggest a longer period of <u>at least</u> 30 days.

Response:
The 20 day response period is specified in WAC 173-225. According to this rule, Ecology can lengthen the response period if needed. The guidance has been modified to reflect this, "Written comments are taken for a period of 20 days. Ecology will consider a longer comment period if asked."

Tulalip
114. Comment:
Pg. 24. Ecology should clarify what it means by the statement on page 24, "It is important to recognize, however, that since the reservoir is not natural the discharge from the reservoir will not be considered a natural condition and thus may not cause or contribute to an excursion from the downstream water quality standards." This statement is unclear.

Response:
If the reservoir was a natural lake instead of a human created impoundment then Ecology would consider the temperature and oxygen effects in the outflow to be natural conditions as well. So if the outflow from a natural lake was warmer than the established numeric temperature criteria, then that warmer temperature would not be considered a violation of the state standards. It would be considered a natural condition and human sources would be limited to warming that natural condition by a cumulative 0.3C. However, human created lakes - reservoirs - can be operated in ways that greatly influence the quality of the water that is released from the reservoir and the relative impact of that water on the ability of the downstream river to meet the state water quality standards. If we were to assume that anything that came from a reservoir was natural, we would be ignoring the real opportunities to design and operate dams in a manner that better protects water quality. It would also make conducting a 401 certification relatively meaningless if a state just assumes that whatever effects are caused by the dam be treated as if there were no human influences (natural). This language tries to make it clear that although we are using a narrative standard to evaluate compliance in the reservoir itself, and that narrative standard acts very much like provisions in the standards that are based on comparing to the natural condition of lakes, we are not assuming that the conditions created in a human-made reservoir is natural.

Tulalip
115. Comment:
Pg. Ecology refers to meeting the "long-term health" needs of fisheries. Ecology's draft guidance should clarify that the Treaty of Point Elliott and other treaties with similar provisions guarantee harvestable levels, and require protecting and rebuilding commercially harvestable quantities of fish through proper habitat protection. *See Washington v. Washington State Commercial Passenger Fishing Vessel Ass'n,* 443 U.S. *658* (1979). NOAA Fisheries' Technical Memorandum states:

It is our policy that the recovery of salmonid populations must achieve two goals: 1) Restore salmonid populations to the point where they no longer require the protection of

the ESA, and 2) restore salmonid populations to a level that allows meaningful exercise of tribal fishing rights.... (emphasis added)

Portions of NOAA Technical Memorandum NMFS-NWFSC-42, *Viable Salmonid Populations and the Recovery of Evolutionarily Significant Units* at 34 (June 2000) (available at http://www.nwfsc.noaa.gov/publications/techmemos/tm42/tm42 .pdf)). Ecology must also meet this treaty standard. *United States v. Washington*, 384 F.Supp. 312, 403 (W.D. Wash. 1974) ("the State and its regulatory agencies must treat such treaty rights as an obligation and interest to be promoted in the State's regulatory, management and propagation programs.").

Response:
Water quality certifications focus on the state rule, the water quality standards. Protection flows for water quality standards and treaty rights may differ. Ecology will take treaty rights into account in 401 water quality certification conditions to the extent they can be reasonably accommodated.

Tulalip
116. Comment:
Pg. 45. The Tribe suggests deleting the sentence, "Resolution of habitat flow problems for existing dams usually involves some balancing between flood control, recreational reservoir levels, navigation, electricity generation and competing habitat, and water quality issues." Draft Guidance at *45*. The Commission is specifically charged with balancing competing uses. 16 U.S.C. § 803(a). We are not aware that Ecology's mandate includes similar "balancing."

Response:
The sentence has been changed to read, "Resolution of habitat flow problems for existing dams usually involves some balancing between fish needs, recreation, navigation, and water quality issues."

Ecology is not mandated through the Clean Water Act, Section 401 to balance competing uses. In practice however, balancing often occurs for narrative criteria. Consider flows for fish survival. Many competing questions have to be answered to understand how to set the overall best flows such as, "What is the best flow if juvenile rearing needs are different from resident species needs which are different from adult salmon migration needs?"

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Douglas
117. Comment:
Pg. 5. The Guidance document states that when a water body does not meet its designated uses due to natural conditions or due to human structural changes that cannot be effectively remedied, then, the highest attainable uses may become an alternative target for that water body. How does DOE plan to determine the highest attainable use

considering the long established biological communities associated with the existing condition of the dams in-place?

Response:
The terms "reasonable assurance" and "reasonable and feasible" provide a pathway for applicants to determine which improvement measures to undertake and how far to go with them. The applicant should preview all known alternative improvement measures. Then the applicant would select and pursue the improvement measures in order of which one gives the most improvement and cost the least. After each water quality improvement measure has been put in place, it is evaluated for effectiveness. If water quality standards are still not met, the applicant would move on to the next most effective measure (considering costs and water-quality improvements) and so forth. A point may be reached when the small improvement and/or costs could outweigh the benefits of continuing to pursue improvement measures. At this time, a water quality standards tool may be used. This concept is being further developed through the UAA guidance.

The UAA guidance is currently under development and will, when finished, be reflected into this guidance. Ecology is providing opportunities for public input. We suggest that you remain involved with this. More information about Washington UAA guidance can be found on our website: http://www.ecy.wa.gov/programs/wq/swqs/uaa.html.

Douglas
118. Comment:
Pg. 5. How does DOE plan to balance the cost of implementing structural modifications or operational changes with the benefit of attempting to meet water quality standards? Must the standards be achieved at any cost?

Response:
The Use Attainability Guidance presently under development will address this question.

Douglas
119. Comment:
Pg. 9. The purpose of a 401 water quality certification is to protect water quality and the beneficial uses of the state's waters as defined under the federal Clean Water Act. When does DOE defer to Washington Department of Fish & Wildlife in making decisions as to the beneficial uses of the water?

Response:
Ecology may not always defer to Washington Department of Fish and Wildlife as to the beneficial uses of the water but Ecology heavily relies on WDF&W for information and recommendations, especially for fish habitat and flow. If potential conflicts arise during negotiations, Ecology relies in WDF&W to keep Ecology informed and consulted. This is also true for other state agencies involved in relicensing such as the Interagency for Outdoor Recreation.

Ecology recognizes the need for a jointly agreed on communication protocol between the two agencies to address compatibility between negotiated agreements and 401 conditions. As a placeholder, further language will be added in Chapter 2 "Ecology and the Washington Department of Fish and Wildlife will work together after the guidance is finished to resolve procedural conflicts concerning negotiated agreements and 401 water quality certification conditions."

Douglas

120. Comment:

Pg. 24. DOE should acknowledge and recognize that the Columbia River is different from other rivers in Washington State. The flow regime of the Columbia River is established and controlled by many factors such as the Columbia River Treaty between Canada and the United States, the National Marine Fisheries Service's Biological Opinion for the operation of the Federal Power System on the Columbia River and Flood Control Requirements established by the Corps of Engineers. Because large federal and Canadian storage projects on the mainstem Columbia River control flow, other water quality factors such as temperature and total dissolved gas are also predetermined for downstream projects. Non-federal Public Utility District projects on the Columbia River have virtually no ability to affect flows or the other water quality parameters that flow determines (i.e. temperature and, to some extent, total dissolved gas). Douglas PUD recommends that DOE establish a 401 certification process that recognizes the existence of the upstream storage dams and that establishes a baseline for water quality with the dams in place.

Response:

This is a good recommendation, but outside the scope of the general guidance. Establishing a baseline is discussed in Chapter 3, Section one and in the beginning of Chapter 3, Section 2.

Douglas

121. Comment:

Pg. 11. Douglas PUD does not support funding DOE staff through interagency agreements or cost reimbursement agreements for personal services contracts. We believe direct funding of staff through these mechanisms provides an inherent conflict of interest. DOE is representing the general welfare of the citizens of the state of Washington and appropriately receives general funding from the same citizenry. Douglas PUB does recognize the specific burden that relicensing can place on the resource agencies and would support a reasonable one-time 401 Certification fee.

Response:

Ecology would support a reasonable one-time fee charged to the applicant. We will support such a proposal should it be raised by utilities before the state legislature.

Douglas

122. Comment:

Pg. 15. The Guidance document indicates the applicant should initiate discussions with downstream jurisdictions to determine how they want to be involved in the relicensing process. Douglas PUD believes that if a project satisfies the water quality standards for the state of Washington, downstream jurisdictions would have no authority over the project and that it would be inappropriate for the applicant to cross jurisdictional boundaries. DOE should be responsible for interacting with downstream jurisdictions as to how state water quality standards affect other jurisdictions' water quality standards.

Response:

In practice, any state or tribe administering their own water quality standards will be involved in the license negotiations as they deem fit. They will intervene in the FERC process and be included on the FERC service list if it is in their interest to do so. You are correct that Ecology is only legally responsible for Washington State standards. However, in the interest of being good neighbors to Oregon and the tribes with approved water quality standards, Ecology will continue to coordinate water quality certifications with them.

The second sentence has been changed to read, "The applicant will include interested jurisdictions in the licensing process through the FERC service list."

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Snohomish PUD

123. Comment:

Pgs. 1-20. The Guidance could benefit from substantial editing within the first 20 pages. It is repetitive, and much of the substantive information is in the introduction. As a guide for staff and the public, it would be more useful if succinct, and better organized.

Response:

Further editing will be done.

Snohomish PUD

124. Comment:

The FERC license is characterized in the Guidance as a "negotiated document." The Guidance discussion gives the reader the understanding that Ecology feels no obligation to coordinate with other resource agencies in reaching consistent license conditions; rather, the water quality analysis and conditions will essentially trump any conflicting opinions and conditions, and the other resource agencies are warned not to get too far afield and not to assume that they have conclusively resolved any matters that may touch on water quality.

Response:

Ecology has obligation to coordinate with those involved in licensing negotiations. However, the agency has not been able to identify a secure funding source to pay for staff

involvement. When this is the case, you are correct; Ecology has to rely on those involved with negotiations to notify the agency of potential conflicts with water quality laws.

Snohomish PUD
125. Comment:
Ecology has staffing limitations. Other permits have funding mechanisms; water quality certifications do not. We are warned that staffing limitations will cause delays in certification. So if a licensee wishes timely assistance and certification, it will be necessary to fund Ecology's participation. While this option is attractive and must be considered, it raises many concerns related to conflicts, and also gives no assurance that entities funding participation will acquire the level of attention they may feel they have purchased.

Response:
Ecology staff funded to coordinate Ecology's involvement on a hydropower project undergoing relicensing will be dedicated to working on that project. Ecology participation also can be facilitated by using efficient meeting agendas, convenient locations, easy-to-read information and data organization, and executive summaries of data and research.

Ecology needs to be very clear if further interagency agreements through RCW 39.34 are made: the applicant funding the position does not control the person fulfilling the position nor do they base their funding of the position on actions favorable to the utility. Ecology would like to be able to obtain funding from the applicants for the water quality certification process. This is how the NPDES permit process is funded for overseeing sound disposal and treatment of industrial and municipal wastes. However, a state law would be needed to do this and we presently have none. Ecology has pursued recompense through FERC in much the same way that FERC bills the applicant for certain federal involvement in the license process. We have not succeeded. FERC would have to approve of a mechanism to recompense states.

Ecology would support a reasonable one-time fee charged to the applicant. We will support such a proposal should it be raised by utilities before the state legislature.

Snohomish PUD
126. Comment:
Pg. 11. Ecology strongly and repetitively recommends that applicants secure Ecology's involvement very early in the process, at least one year prior to commencement of formal license proceedings. This recommendation appears to have real merit. However, the Guidance also suggests that an applicant should anticipate demands for repeated withdrawal and re-filing. If a licensee follows Ecology's recommendation, why should delays in certification be necessary? This is a strange, mixed message.

Response:

We hope to minimize delays by early involvement. This can limit the need for applicant withdrawal and reapplication of the certification application. But Ecology wants to be realistic based on past experience. The timing of receiving information, especially from the NEPA environmental document will present future conflicts. NEPA documents frequently provide valuable and objective scientific analysis on compliance with water quality standards; especially information on project effects on designated uses. Other procedural conflicts sometimes arise that the applicant would think are important enough to withdraw the application.

Snohomish PUD
127. Comment:
Pg. 11. Ecology will decide which of its four water programs will take the lead on a project. Establishing the necessity for coordination by Ecology among four different programs and staffs internally on a single project may create multiple opportunities for inconsistent requirements, delays and disagreements within the agency. And the licensee can be caught in the middle. This may become a source of frustration for anyone attempting to work with the agency to get anything done. Can Ecology adopt a more efficient process?

Response:
Ecology has four programs involved with water quality certifications whether or not the programs coordinate amongst themselves. Ecology is making an effort to achieve consistency, resolve disagreements and promote efficiency within the agency.

Snohomish PUD
138. Comment:
Pg. 3. Section 4 of the CWA requires certification that the proposed activity will meet applicable state water quality standards "…and any other appropriate requirement of state law set forth in such certification…." The discussion of Ecology's authorities on page 3 of the Guidance may imply that Ecology interprets the "other" language as authorization to determine the license conditions necessary to achieve compliance with laws not ordinarily under its purview, possibly even to the extent that Ecology may consider substitution of its judgment for that of other agencies which have not exercised their judgment to Ecology's standards. Clarification of this issue would be appreciated.

Response:
The guidance has been changed to read, "…the CWA requires that applicants for a federal permit or license that involves any discharge to the nation's waters request a certification (401 water quality certification) from the state where the discharge originates that the proposed activity will meet applicable state water quality standards and other *appropriate* requirements of state law."

Ecology views "appropriate" as laws directly supporting water quality standards and equally or more stringent than the standards. One situation where this may be appropriate could be to include the state adopted 2003 water quality standards. These

standards are not yet federally approved but have been adopted into state law. Another may be drinking water standards for reservoirs that also serve as drinking water supply.

Snohomish PUD
129. Comment:
We have noted the absence of any reference in the Guidance to the language or the policy adopted by the 2003 legislature in the last sentence of RCW 90.48.422 "With respect to federal energy regulatory commission licensed hydropower projects, the department may only require a person to mitigate or remedy a water quality violation or problem to the extent there is substantial evidence such person has caused such violation or problem." We believe this provision may define limitations upon Ecology's authority to require 401 certification applicants to "protect" designated uses that do not exist, and especially if they never existed. Clarification of this issue may be of importance.

Response:
We think the guidance is clear that we will only "require a person to mitigate or remedy a water quality violation or problem to the extent there is substantial evidence such person has caused such violation or problem."

The guidance states that the applicant is only responsible for their contribution to pollution. The guidance further describes three steps for the applicant to identify their contribution to water quality problems and take steps to improve water quality problems that they have caused:

1. Broad based data gathering to identify waters of concern;
2. Studies to refine the understanding of pollution behavior and pollution sources. This could include modeling to understand what part the dam plays in adding to water pollution for each specific parameter of concern;
3. Defining and committing to specific measures to fix the problem, but only to the extent that the applicant is responsible for causing the problem.

Snohomish PUD
130. Comment:
This Guidance is expressly not binding upon Ecology. Perhaps regulations are more appropriate and necessary. Licensees may want to be able to rely upon the expectations that arise from the Guidance, especially if it seems to make the Certification analysis and decision process work better and more predictably.

Response:
You are correct; the guidance is not binding upon Ecology or anyone else. They are simply reference materials geared toward making the 401 certification process more understandable and, if used, predictable.

Snohomish PUD
131. Comment:
Pg. 6. Ecology may at its discretion participate in license negotiations with other agencies, but it reserves the authority to order additional or modified license conditions if

it deems such an act necessary, presumably even if it has "signed off" on the settlement. Such a reservation might have the effect of rendering negotiations and settlements a useless exercise and have a dampening effect on other participants and their enthusiasm for settlements.

Response:
The best approach is for Ecology to participate in the appropriate negotiations from the beginning; and Ecology will, if possible. While participation in the fishery and other resource negotiations would assure everyone involved that limiting water quality concerns would be part of the deliberations, Ecology may not participate in all of these meetings. More often, Ecology would consider participating in targeted meeting that address water quality and flow issues. Ecology would encourage applicants to form issue groups to include both water quality and flow issues in one meeting. The decision to participate is made by the regional manager who will sign the water quality certification. This is usually, but not always, the water quality regional section manager.

Water quality certification compatibility with negotiated agreements is important. If Ecology chooses not to participate in a settlement agreement, the applicant and other parties involved will best identify crucial discussions where conflicts with water quality may exist and provide Ecology with early opportunities for involvement.

Snohomish PUD
132. Comment:
Notwithstanding all of the above comments, we believe that a procedural guidance or a regulation would be very appropriate and useful to understanding the arcane "401 Certification" process, and we hope the effort continues.

Response:
Thank you for your comments.

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Northwest Energy
133. Comment:
Pg. 1. Not all FERC processes are "negotiated." The Integrated Licensing Process (ILP) is more appropriately termed "collaborative." Paragraph 6: You note that 401 water quality certification conditions "automatically" become conditions of the FERC license. Does FERC agree? Rather than state 'main re-license", you may wish to state: "In addition to conditions for relicensing, 401 water quality certification conditions are used for amendments"

Response:
We think that the word "negotiated" to describe the process of arriving at license conditions is appropriate. The goal is to arrive at conditions that everyone is ok with during collaborative discussions. However, this is not always the case.

You asked if FERC agrees with our statement that 401 water quality certification conditions automatically become conditions of the license. This is better asked of FERC. The following sentence has been added, "In addition to the conditions for new licenses, 401 water quality certification conditions are used for amendments to licenses for major modifications such as certain construction projects, raising reservoir levels, and adding power generation capabilities."

Northwest Energy
134. Comment:
Pg. 2. "At least one year before the FERC process begins ", which FERC process, the Alternative, Traditional, or Integrated? There may be different time periods for different projects. Now that the ILP has begun, FERC expects licensees to contact resource agencies well in advance (perhaps two years) of the Notice of Intent.

Response:
The different time frames for the different licensing processes is the reason that the guidance is not specific. The guidance outlines the different time periods for the three different processes. FERC is most specific on the timelines in the ILP process.

Northwest Energy
135. Comment:
Pg. 3. The second paragraph really doesn't apply to water quality and should be deleted here.

Response:
The NEPA applies to water quality issues as well as other environmental issues.

Northwest Energy
136. Comment:
Pg. 4. Please provide a definition of beneficial uses. Isn't hydroelectric power a beneficial use? Shouldn't it be considered when Ecology considers other beneficial uses?

Response:
Beneficial uses are the same as designated uses for the purposes of water quality standards. To reduce confusion, the term 'beneficial' has been replaced by 'designated' or just 'uses' throughout the guidance.
Hydropower is not a designated use under the state water quality law 90.48 or the state water quality standards rule 173-201A.

Northwest Energy
137. Comment:
Pg. 7. Please provide a basis for the statement that most of the new licenses are being pursued under the Alternative process. Are all licensees who have a choice turning to the ALP, or are they planning on using the ILP; do you know of any that will request permission to use the ALP or TLP?

Response:
FERC states that the ILP will be the default process but utilities can petition for using the ALP or TLP. The answer to your question is better asked of FERC.

Northwest Energy
138. Comment:
Pg. 9. There appears to be too much emphasis on settlement agreements. The ILP does not allow time for settlement agreements, although there could be some negotiations on license conditions. Paragraph 2: Previously you noted that NEPA/SEPA may not be required if 401 water quality certification is the only permit needed. This paragraph implies that you need NEPA before you can issue a permit. Paragraph 3:

Ecology should be able to issue a 401-water quality certification in the one-year time frame, particularly if the licensee has been working with Ecology in advance of any FERC process. If Ecology has the philosophy that there is a high probability it won't happen, then it won't happen, which is contrary to the intent of the law.

Response:
We agree, the word "settlement" is not applicable to the ILP. Since the ILP will be the predominant process in the future, "negotiated agreements" has replaced settlement agreement" throughout the document as more inclusive of all three processes.

Ecology does not want to delay a license because of insufficient information. We will attempt to gather the necessary information prior to the time the certification is due and will continue to issue the certification in coordination with other environmental review. However, the agency wants to keep open the option to rely on information in a NEPA document. NEPA documents frequently provide valuable and objective scientific analysis on compliance with water quality standards. Especially information on project effects on designated uses. We think that the guidance contains sufficiently flexible language for Ecology to decide if NEPA information may not be needed. This decision will be left up to the regional water quality certification manager.

Northwest Energy
139. Comment:
Pg. 11. Licensees should not have to provide funding to Ecology for Ecology to get the job done. Rather than ask the licensee to provide funding if staff resources are lacking, Ecology should prioritize their work and decide which projects really need their attention. Ecology should also seek relief from the Legislature to allow a permit application fee, perhaps with a sliding scale keyed to the amount of power produced from the hydroelectric facility.

Response:
Ecology would support a reasonable one-time fee charged to the applicant. We will support such a proposal should it be raised by utilities before the state legislature.

Northwest Energy

140. Comment:
Pg. 12. How does Ecology fit these statements into the ILP, and FERC's time frame for issuing a license?

Response:
Ecology's flow chart has been modified to show key corresponding points in the ILP process. We have also provided an appendix for reference to the three FERC process charts, Appendix 4.

Northwest Energy
141. Comment:
Pg. 14. How does this relate to a project that only needs a 401 water quality certification? Earlier, you stated that if 401 water quality certification is the only permit, then SEPA/NEPA completion is not required.

Response:
We stated that a SEPA review is not required if there are not activities that trigger the need this type of review. NEPA documents frequently provide valuable and objective scientific analysis on compliance with water quality standards. Especially information on project effects on designated uses.

Ecology does not want to delay a license because of insufficient information. We will attempt to gather the necessary information prior to the time the certification is due and will continue to issue the certification in coordination with other environmental review. However, the agency wants to continue to rely on information in a NEPA document. We think that the guidance contains sufficiently flexible language for Ecology to decide if NEPA information may not be needed. This decision will be left up to the regional water quality certification manager.

Northwest Energy
142. Comment:
Pg. 15. There appears to be a formatting problem.

Response:
This has been corrected.

143. Comment:
Pg. 17. You should use the term "Spill Prevention, Control and Countermeasure" rather than oil spill prevention plans. Although plans are generally written to comply with 40 CFR Part 112, the plans generally also would apply to hazardous materials as well as oil. What is required if no construction is proposed?

Response:
The word "oil" has been removed from "Oil spill prevention plan."

A Spill Prevention Plan is required for continued operation at the dam to address oil containment for greases and oils used on-site.

Northwest Energy
144. Comment:
Pg. 19. Please provide some guidance (criteria) on what on-going monitoring studies would be required when water quality standards are met for hydroelectric projects that are proposing continued operations as presently licensed

Response:
If water quality standards (including flow criteria) are currently being met, no studies would be needed for understanding and fixing specific existing water quality problems. The presence of the dam may, however, may constitute potential for future violations. If this were so, a monitoring program may be needed to keep track of pollution levels so a quick response could be made if high levels were detected. Oil and grease is the primary example. Narrative criteria attainment will often need to be monitored. This may be as simple as knowing turbine releases and bypass releases so flow levels found in the water quality certification are being met.

Northwest Energy
145. Comment:
Pg. 19. Under "Follow-up. Please provide scientific justification on why studies need to be conducted over several years, and alternatively what conditions would allow a reduction of monitoring.

Response:
This is answered in the last paragraph on page 19. Monitoring needs vary greatly between projects. But for all projects, a basic data gathering process is used to get the best information with the least effort. Data gathering starts with a literature search. The next step is broad based monitoring, usually only for one season—to see what levels of pollutants exist at critical periods of the year. Ideally, this information would be gathered over a period of one year. However, this step would have continue for longer if environmental condition such as flow were not representative of critical conditions. After initial information is gathered, the utility proceeds to get more information about pollutants that were identified in the initial assessment as potential problem parameters.

Northwest Energy
146. Comment:
Pg. 24. Packwood Lake is a naturally formed lake, for which a debris dam was replaced with a concrete structure to allow hydroelectric power production. How would water quality standards apply?

Response:
Water quality standards do not apply to naturally occurring conditions such as a naturally formed lake that maintained historic natural lake levels. The water quality standards only apply to pollution resulting from the presence and operation of the dam. This could

include changes in outlet flows, oil and grease present at the dam, and other criteria affected by the dam.

Northwest Energy
147. Comment:
Pg. 39. Under "Monitoring Considerations," under what law must detailed and accurate records be kept of all uses, transfers, and disposal (including oily rags and sorbent materials).

Response:
The dam owner bears the responsibility to report all spills. One of the most important ways for the owner to know if a spill occurs is by keeping accurate and detailed records of all uses, transfers and disposals. Sorbent materials are designed to clean up small and large spills both within the facility and when material gets into the water. Sorbent materials often soak up the bulk of the spilled material; they are designed to soak up to 20 times their weight in oil.

Northwest Energy
148. Comment:
Pg. 40. Under "Protection and improvement actions," 40 CFR Part 112.3 only requires the preparation and implementation of an SPCC, not submission to the EPA. They have to be available for review. Under Part 112.4, if a discharge of a certain size occurs, submission of information on the discharge, and how it relates to the facility's SPCC, is required to EPA.

Response:
You are correct.

Northwest Energy
149. Comment:
Pg. 46. Under "Wildlife Habitat," you should refer to Washington Department of Fish and Wildlife (WDFW) rather than agency.

Response:
We have changed the wording to read, "Washington Department of Fish and Wildlife--also in response to comments from that agency.

Northwest Energy
150. Comment:
Pg 47. Under "Monitoring considerations," Ecology needs to provide more details on how the relationship with WDFW works in regards to 401 water quality certification. A licensee should not have to do wildlife studies for 401 water quality certification beyond what FERC requires in the ILP (or some other FERC process).

Response:

Ecology recognizes the need for a jointly agreed communication protocol between the two agencies to address compatibility between negotiated agreements and 401 conditions. As a placeholder, further language will be added in Chapter 2 "Ecology and the Washington Department of Fish and Wildlife will work together after the guidance is finished to resolve procedural conflicts concerning negotiated agreements and 401 water quality certification conditions."

Also, another bullet has been added in Chapter 2 for the initial workplan to cover, "How the parties will address the relationship of negotiated agreements to 401 conditions."

Northwest Energy
151. Comment:
Pg. 48. Under "Monitoring considerations" and "Protection and improvement actions" please provide more detail on Ecology's expectations if a natural channel change occurs in a river basin because of flooding that changes the characteristics of wetlands in a project area.

Response:
If the presence or operation of the dam contributes to reductions in wetlands below the dam, the dam owner may bear their share of the responsibility.

Northwest Energy
152. Comment:
Pg 50. I could not access the link to "Washington State Senate Bill 5028", either through your document or through the Washington State Legislature web site.

Response:
The guidance has been linked only to what we hope are fairly stable WEB-sites. When we become aware of problems or changes, we will attempt to provide the correct link. The site you refer to have had some down-times but as of this writing is up and running.

Northwest Energy
153. Comment:
Pg 54. Please add a definition for "beneficial uses."

Response:
The term 'beneficial' has been removed and replaced either with 'uses' or 'designated uses'.

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Hydropower Reform Coalition
154. Comment:
Pg. 17. We wish to fortify what Ecology has stated in its second workshop. Our organizations strongly support reopener clauses and issuing the certification as an independently enforceable administrative order. Reopener clauses are necessary to

ensure that the health of the impacted stream is not locked in for the duration of the license regardless of technological developments, species deterioration, or evolving reliance on the stream. Reopeners are rarely if ever invoked, and are not new to the hydropower industry: other agencies reserve authority in their mandatory conditions as well. Ecology should also retain rights to independent enforcement of its 401 conditions; FERC's history of enforcement and compliance is abysmal for environmental protections. Ecology is not alone among its fellow states in either of these practices, and according to our legal analysis, Ecology is empowered to independently enforce the terms of its 401 regardless of the way it is issued. There is no reason to abandon present practice, nor is guidance the appropriate forum to consider such changes.

Response:
Ecology issues water quality certifications under RCW 90.48, which gives Ecology state enforcement authority.

Hydropower Reform Coalition
155. Comment:
Pg. 6. We object to the extensive discussion of Use Attainability Analyses (UAA) within this 401 guidance. A UAA is neither a substitute for a 401 nor a "path out" for licensees who do not feel that they can or should have to comply with state standards. In spite of this irrelevance, Ecology provides grossly disproportional space advertising UAA as an endgame option – nearly two pages; twice what it spends explaining fecal coliform or toxics.

Ecology is also separately developing UAA guidance that will still be incomplete at the time of publishing this 401 guidance. A discussion of how UAAs should be applied to dams belongs in the development of the UAA guidance, not in the 401 guidance. We also disapprove of Ecology's engagement of potential UAA applicants community by community outside of the UAA guidance development process.

As our colleagues at Columbia Inter-Tribal Fish Commission point out in their comments [P. 1-2], the Lake Chelan certification is not the beginning of an era. It is a unique case, and should not be considered a template for future certifications. Ecology has intimated in discussions that it believes Lake Chelan to be a modern marvel of compromise. We disagree, and we urge Ecology to avoid issuing similar certifications in the future.

Recommendation: Ecology should exorcise its discussion of UAAs to the lingual limit it has presently established for variances and water quality offsets, while pointing to the final UAA guidance, once complete, for further information.

Response:
We think that the short paragraph on UAA guidance as a water quality standards tool is of appropriate length. We agree that the paragraph on page four which describes the concept of UAAs is redundant and it has been removed. We think that reference to the

UAA guidance will be sufficient. The UAA guidance is currently under development and will, when finished, be reflected into this guidance. Ecology will continue to provide opportunities for public input. We suggest that you remain involved with this. More information about Washington UAA guidance can be found on our website: http://www.ecy.wa.gov/programs/wq/swqs/uaa.html.

Hydropower Reform Coalition
156. Comment:
Pgs. 2 & 14. Our Coalition members have worked positively with Ecology in settlement proceedings. We agree that water quality is closely related to other issues, and that Ecology staff should not remain in a cave in Olympia as an interrelated licensing agreement is constructed.

However, Ecology must meet its mandate, regardless of the terms of the settlement. It cannot compromise its mandate in order to match up or be consistent with settlement agreements, as it has suggested. We appreciate that Ecology will not surrender its authority to modify the terms of its certification if it is a settlement party. Similarly, Ecology should not waive its authority to issue a 401 certification if it is a settlement party. As this guidance points out, Ecology must be exceptionally judicious in its participation in settlement negotiations from a staffing resources perspective and a public process perspective. We discuss both of these problems below.

Recommendation: Ecology should revise the guidance to congregate all of its comments on settlements into one section. In this section, Ecology should describe its preference for collaboration as well as its staffing and public record limitations. It should also specifically restate that Ecology will not fail to fulfill its 401 obligations, and will not waive or compromise its authorities under settlement.

Response:
We agree with you that Ecology participation in crafting interrelated negotiated agreements is important. It will be come more important for Ecology during the Integrated Licensing Process with its more stringent timelines.

We do not see a need to collect all the references and information about the settlement process into one portion. We think more appropriate terms are “license negotiations process” and “negotiated license agreements.” This is because the settlement process only refers to the Alternative Licensing Process which will rarely be used in the future. The Integrated Licensing Process includes many opportunities for collaboration through negotiation. The document is organized by process and authorities. The “license negotiations process” needs to be mentioned when discussing the different authorities as well as when explaining the various licensing processes.

Ecology will consider negotiated agreements when writing water quality certification conditions. If the utility and those involved in licensing negotiations have provided Ecology with sufficient information so we can identify and work out potential conflicts early on, negotiated agreements should not conflict with, and may at times be

incorporated into water quality certification requirements. Nevertheless, Ecology does not intend to waive certification authority on the basis of settlement agreements.

The last two sentences of the fifth paragraph on page 14 have been replaced with, "Ecology plans to never waive its authority if it has substantial environmental concerns. "

Hydropower Reform Coalition
157. Comment:
Several times within the draft guidance, Ecology states that its work is bounded by the amount of resources available to the program. A limited number of staff is one constraint. While settlement participation would be optimal, it cannot be assured. Ecology is also aware of the dangers of partial engagement where a settlement process exists. A second factor is the extensive volume of work to be done – Washington has seen several relicensings at once for a decade. Third, there is the timeframe. Ecology has a one-year clock to receive an application, notify the public, receive comments, review the data, and issue a decision.

Ecology traditionally responds to these constraints by limiting the point at which it gets involved in a relicensing and strategically investing more time as the project nears a critical stage. The Coalition supports an efficient and strategic approach so long as it is an open approach and does not invest too early in the process (see Public Record, below). The Coalition also specifically urges Ecology not to waive its authority over any project, regardless of the size or impacts of the project.

Additionally, Ecology has sought other funding options for meeting resource needs. Ecology admits that these options are limited: only PUDs may initiate an interagency agreement, which has only been done once in the licensing context. Cost reimbursement agreements – that is, paying for outsourcing – have never taken place. Outsourcing, while not preferable, is nothing new in other arenas; paying staff directly is certainly an indelicate approach that should be avoided.

Our first concern is: what is the difference between the quality of "service" a non-paying applicant receives and a paying applicant receives? If un-financed 401 processes produce a lower quality certification or financed 401 processes are influenced inappropriately, which naturally is likely to occur, then the Coalition does not believe that such unequally applied payment programs are solutions.

Rather, the Coalition supports a reasonable across-the-board approach to supplement resources to the program. Ecology may think that a flat fee is a suitable process; or that a cost reimbursement agreement for all projects is most equitable, since a larger, more profitable project will require more work and therefore more funds than a smaller project. If it believes the former approach is best, this action will require authorization from the state legislature. Ecology has proposed a legislative action that would involve horse-trading substantive pieces of Ecology's program in exchange for support from the hydropower industry. The Coalition directly opposes this approach and will fight the necessary battles in the state legislature to prevent an exclusionary bill from passing. We are, however, open to working collaboratively on legislation.

If it believes the latter approach is best, then Ecology must incorporate safeguards to ensure that the division of authorities between the agency and its consultants are clear and do not result in the outsourcing of decisions.

Recommendation: To cope with resource restrictions and limited funding, Ecology should explore other hydropower dam intensive state programs and seek their recommendations. If Ecology chooses a funding path that requires legislation, it should not allow the legislation to advance without the awareness and participation of other stakeholders.

Finally, Ecology should alter its comments on when it will waive its certification authority to state simply and strongly that it is Ecology's policy not to waive its authority. Ecology should especially not excuse itself by considering the depth of impacts to be too small: Ecology has equal obligations to meet water quality standards in all of its jurisdictional streams.

Response:
Ecology would support a reasonable one-time fee charged to the applicant. We will support such a proposal should it be raised by utilities before the state legislature. If Ecology were to support funding from the legislature, opportunities exist for input by all interested parties involved in the legislative process.

Ecology needs to be clear when making interagency agreements through RCW 39.34: the applicant funding the position does not control the person fulfilling the position nor do they base their funding of the position on actions favorable to the utility.

Ecology would like to be able to obtain funding from the applicants for the water quality certification process. This is how the NPDES permit process is funded for overseeing sound disposal and treatment of industrial and municipal wastes. However, a state law would be needed to do this and we presently have none. Ecology has pursued recompense through FERC in much the same way that FERC bills the applicant for certain federal involvement in the license process, but has not succeeded. FERC would have to approve of a mechanism to recompense states.

The last two sentences of the fifth paragraph on page 14 have been replaced with, "Ecology plans to never waive its authority if it has substantial environmental concerns. "

Hydropower Reform Coalition
158. Comment:
Pg. 11. We all want to work with Ecology earlier and more efficiently, but Ecology should not compromise the public aspect of its mandate by developing conditions or a framework for conditions without a record. That is, Ecology must establish a record if it enters into early collaboration with the applicant, and should attempt to include other stakeholders in that collaboration.

The record is a foundation for public engagement. Where Ecology does not provide a process in which the public can engage, Ecology should faithfully establish a record so

that the public may review the work that has been done. The record should be identifiable to the public; in this draft, the record remains unclear. Ecology may rely on studies within the licensing process and additional studies that it requires to fulfill its needs, but does not explain the timeline for study requests or when it will select which information. The public appears to have a very limited window in which to contribute additional evidence, but the FERC record is open. What evidence will Ecology consider from the FERC record? How does Ecology recommend that the interested public engage Ecology?

Finally, the guidance must be for all stakeholders, and not just the certification applicant. Ecology appears to want to engage with the public in these earlier stages, but does not explicitly provide for how the public may be engaged. We reiterate our previous caution that this guidance must clearly represent all angles at which Tribes, landowners, irrigations, conservation organizations, other stakeholders and members of the public have the right to participate. For example, Ecology should clarify who may appeal a 401.

Recommendation: Ecology should create a section devoted to the public record and public involvement. In this section, Ecology should specifically describe the public record, notice, and level and avenues of involvement before and after the certification's issuance.

Response:
Under current law, Ecology's decisions on 401 water quality certifications do not result in the creation of an administrative record for appeal. On appeal, all admissible evidence may be heard as time permits. The 401 water quality certification decisions attempt to summarize the rationale supporting them.

Participation in negotiations and other FERC processes are open to all interested parties. When Ecology participates in these forums, the public record remains the same as FERC's. When the certification process differs from the FERC process, Ecology will strive to have meetings open to interested parties. When Ecology meets solely with an applicant or only with a tribe, all records made from that meeting are public documents, subject to public disclosure requests.

Hydropower Reform Coalition
159. Comment:
Pg. 3. Ecology describes its various authorities in a non-linear list of codes, laws, and terms. Rather, Ecology should develop a tree of authorities that branch down into mechanisms and then further into their relationship to 401 certifications. For example, anti-degradation, Total Maximum Daily Loads (TMDL), and NPDES all play a role in dam regulation and have a nexus with 401 certifications. In addition, all are derived from Clean Water Act delegated authority.

In this way, Ecology can avoid misplacing TMDLs under its "Scheduling" category. Ecology is quick to say that the completion of a TMDL is not required before a water quality certification may be issued. However, on water bodies where TMDLs are ongoing, Ecology must make strident efforts to coordinate timelines. TMDLs provide an

extensive body of information and may make specific recommendations on how to manage the waterway, a dramatic benefit to a 401 decision. In one recent FERC relicensing, the state specifically noted that pending the outcome of a TMDL decision on the river, the state might reopen and adjust the terms of the 401 certification.

In the guidance, Ecology admits that it is common practice to wait for additional documentation from FERC to be completed in order to strengthen the 401 certification. We support this practice, although we do not believe that FERC's NEPA document is generally adequate for water quality certifications and should not be relied on for that purpose. The guidance should also acknowledge that other factors may contribute to the withdrawal and resubmission of water quality certification applications, such as completing necessary studies or TMDLs.

Also, Ecology makes a stand-alone statement about the scope of impacts that seems to relieve applicants of resource responsibility. Ecology should caveat that statement by clarifying that the applicant will be expected to determine impacts from activities within their control if they affect larger problems outside of their control. For example, while the dam may not be the point of a toxic sediment discharge, the dam's operations affect the distribution and timing of that toxic sediment's movement through the system. Further, this responsibility may make sense to state in terms of TMDL because of the spectrum of impacts addressed in that forum, but certainly is – and should be described as – broadly applicable.

Recommendation: Ecology should revise Chapter 2 to branch down from legal authorities, to state codes, to mechanisms to implement those authorities, and those mechanisms nexus with a 401 certification. In its TMDL section, Ecology should specifically state that while it is not required to complete a TMDL before issuing a 401 certification, it is highly prudent and should be encouraged in all circumstances. Ecology should explain when NPDES permits are appropriate for the discharge of oil and grease from project facilities into waterbodies. It should also restate its expectations of the applicant with regard to the scope of its study responsibilities.

Response:
The legal authorities described in Chapter 2 branch down as you suggest from federal laws to state laws to state codes. We have organized them a little differently to make them clearer. TMDLs are not listed here because they are not a legal obligation in terms of 401 water quality certifications. The TMDL is viewed as more of a technical analysis tool. This type of analysis is only needed when the dam is one among several sources for the same pollutant. When this seems to be the case, Ecology will encourage TMDLs or TMDL-like studies to be completed in order to know how much responsibility the applicant will need to shoulder. We think that the language in Chapter 3 is sufficient. At this time Ecology does not require NPDES permits for discharge of oil and grease. This is sufficiently covered under spill prevention and clean-up planning.

Hydropower Reform Coalition
160. Comment:
Pg. 10. Denying a Certification: Ecology provides us with a chart that describes the

flow diagram for decisions in the certification process. According to this flow chart, there are only two outcomes: Ecology may deny a certification, or Ecology may issue a certification and the "dam operator works to meet conditions in the order." Ecology appears to deny an application for one of the following reasons: the timing of the processes did not synchronize and the application had to be withdrawn; or new information has come to light and a different analysis is warranted. In either of those cases, Ecology's denial is essentially "without prejudice" – meaning that the applicant may continually resubmit until it receives certification. Ecology does not explain under which circumstances it would deny a certification absolutely.

Recommendation: There are and will be instances where an existing dam may not meet water quality standards and cannot reasonably be assured to meet water quality standards following a compliance schedule. Ecology should delineate in this chart that if presented with this impasse, Ecology will deny an application with finality. We agree that Ecology should not include waiving a certification in this flow chart.

Response:
The flow chart has been changed to reflect your comment.

Hydropower Reform Coalition
161. Comment:
Pgs. 3 & 15. Sharing Authorities with Upstream States: According to the guidance, once triggered, the scope of the 401 is to "all activities of the project that may affect state water quality standards," and that "the state will strive to meet downstream state and tribal water quality standards." Considering the topography of Washington, the only downstream state is Oregon, and the only river that would be affected by such downstream courtesy is the Columbia River. On the other hand, several rivers pour into Washington State from Idaho and Oregon. Ecology has not described its policy with regard to upstream states, or to a conflict between states.

Recommendation: Ecology should create a third bullet point to describe the authorities of EPA with regard to conflict between states. The point should state the relevant regulations; the process for resolving conflict and at what point the public may participate or challenge the outcome. Ecology should also address upstream management, and specifically state that Washington will not permit violations of its water quality standards by upstream states where shared 401 authorities exist.

Response:
The following sentence has been added, "The state will also seek to work with other states to ensure that waters entering the state from other FERC projects meet Washington State water quality standards."

Hydropower Reform Coalition

162. Comment:

Pg 17. Adaptive Management: The guidance states that, "Adaptive management conditions will often be placed in the certification to adjust monitoring and new improvements based on new information." We strongly support adaptive management techniques to the extent that they are not a compliance schedule, but rather managing a dynamic system in a dynamic way.

Response:

Under the state's water quality standards, *Compliance Schedules for Dams* contain requirements for adaptive management.

Hydropower Reform Coalition

163. Comment:

Pg. 18. The guidance states that "if the [401] conditions are not met, [Ecology Staff are expected] to take appropriate action." What actions do Ecology consider appropriate? Ecology should state that it intends to conduct vigorous enforcement of the terms of its certification, and if 401 conditions are not met, Ecology will respond with compliance actions.

Recommendation: Ecology should revise the guidance to make a separate and powerful statement about its intent to enforce 401 conditions.

Response:

The following language has been added, "Enforcement actions available to Ecology are clearly outlined in Washington State's water pollution law, 90.48. Ecology will rely on FERC to enforce water quality conditions in the license. If FERC fails to do so, or if the water quality conditions have not yet been incorporated into a new license, Ecology will take enforcement action under state authority if it is deemed necessary."

Hydropower Reform Coalition

164. Comment:

Pg. 44. Flow Modeling: Ecology describes its expectation to use IFIM flow modeling in its approach to determining flows for river reaches impacted by hydropower dams. As Ecology may know, IFIM is broadly considered by the scientific community to be an inadequate tool for assuring river health and meeting biological and other management objectives. Ecology should not limit its flow methodologies to IFIM in the context of this guidance. As an alternative, the Coalition specifically endorses the Ecologically Sustainable Water Management (ESWM) framework and principles of the IHA program.

Recommendation: Ecology should strike its specific endorsement of IFIM as a tool for flow modeling or provide a more diverse representation of available tools to make decisions on flow regimes.

Response:

IFIM is often selected as the best available method for predicting how the quantity of available fish habitat changes in response to incremental changes in streamflow. IFIM

studies have been done on rivers such as the Columbia and Snake Rivers. It has repeatedly been upheld by the Washington State Supreme Court as a proper and valid method for Ecology to use in determining instream flows below hydroelectric projects.

The U.S. Fish and Wildlife Service in the late 1970s (Bovee, 1982) developed this methodology. The IFIM involves putting site-specific streamflow and habitat data into a group of models collectively called PHABSIM (physical habitat simulation). The most common model is IFG4, which uses multiple transects to predict depths and velocities in a river over a range of flows. IFG4 creates a cell for each measured point along the transect or cross-section. Each cell has an average water depth and water velocity associated with a type of substrate or cover for a particular flow. The cell's area is measured in square feet. Fish habitat is defined in the computer model by the variables of velocity, depth, substrate, and/or cover. These are important habitat variables that can be measured, quantified, and predicted.

The IFIM is used nationwide and is accepted by most resource managers as the best available tool for determining the relationship between flows and fish habitat. However, the methodology only uses four variables in hydraulic simulation. At certain flows, such as extreme low flows, other variables such as fish passage, food supply (aquatic insects), competition between fish species, and predators (birds, larger fish, etc.) may be of overriding importance. In addition to the PHABSIM models, IFIM may include reviewing water quality, sediment, channel stability, temperature, hydrology, and other variables that affect fish production. These additional variables are not analyzed in this report.

After the IFG4 model is calibrated and run, its output is entered into another model (HABTAT) with data describing fish habitat preferences in terms of depth, velocity, substrate, and cover. These preferences vary according to fish species and life-stage (adult spawning and juvenile rearing).

Hydropower Reform Coalition
165. Comment:
Draft Certifications and Public Comment: Ecology has asked whether it should publish a draft certification in advance of issuance. While it notes that such a change would be sweeping across all 401 programs and that this may be unpopular, Ecology is persuaded by the concept of “no surprises.”

The Coalition believes that Ecology should issue a draft certificate for public review and comment before issuance. As industry and CRITFC have pointed out, this review will prevent costly and prolonged appeals over minor matters that could have been resolved by a comment period. It will also ensure that Ecology produces a high quality and defensible 401. However, Ecology absolutely may not allow selected parties the opportunity to review a draft certification or otherwise evade public review.

We foresee one problem with offering a draft. First, if Ecology must amend the 401 development process, then it must issue a draft certification even if it expects the applicant to withdraw and resubmit the 401 application. Extraneous drafts are not

helpful and cause more workload for Ecology, and it is difficult to imagine how Ecology could construct this process to avoid extraneous drafts.

Recommendation: Ecology should amend its process to include draft certifications with ample time for public review and comment, ideally 60 days. However, the Coalition recommends that the process Ecology designs be mindful of the paths toward unnecessary delay and extraneous drafts.

In addition, Ecology should extend only existing public opportunity to comment from 20 days to 45 days in order to make it meaningful. [P. 16] Ecology should also revise item b. on P. 16 to read that Ecology will ask the applicant to public a legal notice in a local newspaper. It is not a difficult or costly task.

Response:
Ecology is planning to provide opportunity for review of the draft conditions of the 401 water quality certifications.

Hydropower Reform Coalition
166. Comment:
We strongly recommend hiring a copywriter to assure formatting and a conversational rather than technical tone where appropriate.

Response:
Editing and formatting review will be done.

Hydropower Reform Coalition
167. Comment:
The cover states that this is a "Final Draft" in its title, a "Revised Draft" in its subheading, and a "Preliminary Draft" in its footer.

Response:
This error has been corrected.

Hydropower Reform Coalition
168. Comment:
Pgs 2. There is a timing discrepancy with three different due dates for the application on P. 2: "…an application is required to submit its request for a 401 water quality certification no later than 60 days after the FERC issues its ready-for-environmental analysis notice;" and later "FERC's regulations require that the applicant submit its 401 water quality certification application no later than the time it submits its licensing application to FERC (traditional and alternative process), or no later than FERC declares the application to be ready for environmental analysis (integrated process)."

Response:
The language has been changed, "FERC's regulations require that the applicant submit its water quality certification application no later than 60 days after the commission issues its Ready for Environmental Analysis notice." The following language has been deleted, "FERC's regulations require that the applicant submit its water quality certification application no later than the time it submits its license application to FERC (traditional and alternative process), or no later than FERC declares the application to be ready for environmental analysis (integrated process).

Hydropower Reform Coalition
169. Comment:
Pg. 2. Please clarify that "relief may be sought from the Secretary of the *United States* Department of Commerce."

Response:
We have changed the description to read, "…relief may be sought from the Secretary of the United States Department of Commerce"

Hydropower Reform Coalition
170. Comment:
Pg. i. We also expect Ecology to update the document as major or minor revisions become necessary.

The Coalition appreciates Ecology's acknowledgement that the public dialogue does not stop here. We encourage Ecology to continue to participate in interdisciplinary developments in FERC relicensing and to recognize and apply scientific advancements, as it has done in the past.

Response:
We have added the following, "Ecology expects to update the document as major revisions become necessary."

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Seattle City Light
171. Comment:
SCL believes it is in the best interest of all parties to release the draft certification to the public before it is issued in its final form. By releasing the draft to the public, interested parties would have the opportunity to raise their concerns early in the certification process. Currently, parties with disputes must appeal decisions after the final certification has been issued. With public release of the draft, Ecology could avoid costly and time-consuming litigation against the Agency, and this procedure aligns with other permitting processes at the Agency. Most importantly, a public review process improves the chances of creating a more satisfactory certification.

Response:
Ecology is planning to provide opportunity for review of the draft conditions of the 401 water quality certifications.

Seattle City Light
172. Comment:
Pg. 14. For the licensee, the synchronization of the Ecology 401 Certification process with the FERC NEPA process remains unclear. As stated in the Manual, "A timing problem occurs when the one-year timeline between receiving an application and issuing a water quality certification ends prior to FERC's completion of its NEPA process. Ecology may ask the applicant to withdraw and reapply, or deny the application without prejudice to being re-filed…." We understand that past licensees have been asked to withdraw their certification applications and FERC authorizes a one-year extension of the license, allowing time for the application to be reviewed and the certification issued. As a licensee, further description of the coordination between the Agencies and the expectations of all parties involved for efficient synchronization of this process would be a helpful addition to the overall process and the Manual. And given that FERC has established a new and different relicensing process – the Integrated Licensing Process (ILP) - intended to improve process efficiency, predictability and timeliness, it seems appropriate and timely for all involved to understand this "end-piece" in the process.

Response:
We do not want to delay a license because of insufficient information. We will attempt to gather the necessary information prior to the time the certification is due and will continue to issue the certification in coordination with other environmental review. However, the agency wants to continue to rely on information in a NEPA document. NEPA documents frequently provide valuable and objective scientific analysis on compliance with water quality standards. Especially information on project effects on designated uses. We think that the guidance contains sufficiently flexible language for Ecology to decide if NEPA information may not be needed. This decision will be left up to the regional water quality certification manager.

Seattle City Light
173. Comment:
Pg. 1. In regard to the scope of the 401 Certification, SCL suggests that Ecology use language throughout the Manual that more accurately conveys the specific authority provided in Section 401 of the Clean Water Act (CWA) when an existing hydropower project is undergoing relicensing. More specifically, Section 401 authorizes certification of activities that result in discharges into navigable waters of the United States. In the case of existing hydropower projects (dams), the operation of a dam is an activity that may have impact on discharges into navigable waters, or impact on water quality. Specific construction projects at a hydropower project are another activity that could impact discharges (or water quality). Therefore, the activities at the project that result in discharges are the focus of the State 401 certification, not the physical dam itself. A suggested change for the 401 manual is "the activities of the project will meet water quality standards" instead of "the project will meet water quality standards".

Response:
We agree that the project activities have to meet State water quality standards. It is more complicated though because a dam can contribute to worsened water quality conditions just by its presence. We have included dam activities as well as 'the project' in our description.

Seattle City Light
174. Comment:
Pg. 23. SCL suggests clarifying wording at the end of the second paragraph. Above the paragraph, numbers of water quality parameters are listed, but only some of the parameters listed will apply to each relicensing certification. To clarify this, consider adding the following wording at the end of the second paragraph: "Not all parameters, considerations or possible impacts will apply to each certification."

Response:
Your suggested change has been made to read, ""Not all parameters, considerations or possible impacts will apply to each project."

Seattle City Light
175. Comment:
Pgs. 53-55. Many of the definitions do not precisely match the wording of definitions in the statute or regulations. Instead, many of the definitions appear to reflect Ecology's interpretations. While the provision of simpler wording is probably intended to help clarify, such wordings can result in interpretive language that may result in a different meaning than specified in the statute. We recommend that you change the title to: "Appendix I - Acronyms and Water Quality Terms" (p. 53). On p. 54, we suggest changing the subtitle "Water Quality Definitions" to "Water Quality Terms". On p. 54, we suggest rewording the brief description directly below the "Water Quality Terms" subtitle as follows: "This is a general introduction to water quality terms Ecology uses in this guidance. Refer to the 2003 Water Quality Standards and federal regulations for complete definitions."

Response:
Your suggestion has been incorporated.

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Chelan PUD
176. Comment:
The Revised Draft 401 Guidance Manual should incorporate the use of biological objectives and other outcome-based approaches. Chelan PUD is concerned that the Revised Draft 401 Guidance Manual does not clearly express Ecology's receptivity to the use of biological objectives and other outcome-based approaches under appropriate circumstances. As you know, biological objectives were incorporated into Ecology's recent section 401 certification for the Lake Chelan Project, and that certification was later affirmed by the Washington Pollution Control Hearings Board (PCHB).

Confederated Tribes of the Umatilla Indian Reservation v. Department of Ecology, PCHB No. 03-075, April 21, 2004.

The PCHB's decision arose from a settlement agreement signed by Ecology, along with a corresponding section 401 certification issued by Ecology. Before the PCHB, Ecology and Chelan PUD jointly defended the legal and policy decisions made by Ecology, particularly regarding the role of biological objectives in the context of a rigorous adaptive management plan.

The result was a PCHB endorsement of Ecology's approach, thereby providing Ecology with the opportunity to consider the use of biological objectives and other outcome-based approaches in future section 401 certifications. Such an important development should be noted in the Revised Draft 401 Guidance Manual, so that other hydroelectric licensees can consider proposing a similar approach to Ecology.

Accordingly, we suggest that the following language be included in the next draft of the Revised Draft 401 Guidance Manual at page 6, immediately preceding the discussion of variances.

Use of biological objectives and other outcome-based approaches. Where numeric criteria may not be achievable, Ecology is receptive in appropriate circumstances to proposals from licensees to use biological objectives or other outcome-based approaches as a complement to numeric criteria. Such proposals, however, must clearly define the biological objectives or other outcomes, and must be supported by a rigorous adaptive management plan. For an example of this approach, see Ecology's April 21, 2003 certification for the Lake Chelan Project, and the subsequent decision of the Washington Pollution Control Hearings Board (PCHB) affirming that certification. *Confederated Tribes of the Umatilla Indian Reservation v. Department of Ecology*, PCHB No. 03-075, April 21, 2004. Ecology intends to review any such proposals on a case-by-case basis.

Similarly, on page 12, the list of tasks to be done prior to requesting section 401 certification should be expanded to include the following: "Consider use of biological objectives or other outcome-based approaches for those water quality parameters that don't meet water quality water numeric criteria." Logically, this would follow the task described as: "Develop a water quality attainment plan and a compliance schedule for those water quality parameters that don't meet water quality standards."
For consistency, language should also be added on page 17, at the end of the second paragraph. We suggest: "Where numeric criteria may not be achievable, a rigorous adaptive management plan may also be included in the certification in support of agreed-upon biological objectives or other outcomes."

Response:
The water quality numeric criteria are developed to protect designated uses. They are used as the primary attainment goal. If they cannot be met after the applicant has exhausted all reasonable methods, then tools are found in the water quality standards that

allow for alternative criteria to be developed, provided that the uses do not suffer. We explain these tools in the guidance.

Ecology has written sufficient language in the 2003 proposed water quality standards to address outcome based concerns. The language was developed through involvement with the public, including much input from utilities. This language, under *Compliance Schedules for Dams*, directs the applicant to make a good effort to meet water quality criteria. If the criteria have not been achieved after a period of time, only then will we consider the water quality tools as a means of developing alternative criteria.

We think the results of the PCHB Chelan decision is sufficiently incorporated in the document. The Chelan 401 water quality certification provided for a compliance plan using adaptive management to meet water quality standards over the compliance period. It did not excuse non-compliance but recognized that a standards change request would be considered at the end of a compliance period, if justified.

Chelan PUD
177. Comment:
Pg 16. The Revised Draft 401 Guidance Manual should explain the procedural consequences of Ecology's position that its section 401 certifications are enforceable under state law. The Revised Draft 401 Guidance Manual states on page 14 that: "Each Ecology 401 certification is issued as an administrative order under RCW 90.48. This purports to make the conditions of the 401 certification enforceable under state law, as well as incorporated into the FERC license pursuant to the Clean Water Act."

Chelan PUD respectfully submits that Ecology's practice of issuing Section 401 certifications as state-enforceable administrative orders is preempted by the Federal Power Act (FPA), in particular the comprehensive FERC hydroelectric enforcement and civil penalty provision enacted as Section 31 of the FPA in 1986 as part of the Electric Consumers Protection Act, subsequent to the enactment of Section 401 of the CWA. 16 U.S.C. § 823(b) Setting aside that legal issue, however, Ecology's stated position on this matter raises important procedural questions that should be addressed in the Revised Draft 401 Guidance Manual. Specifically, does Ecology intend to bring enforcement actions in state court, rather than seeking enforcement at FERC? If so, under what circumstances would it do so? If it does so, how would Ecology suggest that a licensee respond if a state court orders it to take steps that are in conflict with the terms of its FERC license, and thus subject to civil penalties pursuant to Section 31 of the FPA?

Response:
Ecology will strive for consistency between federal and state requirements and timelines. There are at least two statutory bases for active implementation of the water quality standards in respect to federally licensed dams: the conditions found in the FERC license and Washington's statute, 90.48, the Water Pollution Control Act. The state issues water quality certifications as state administrative orders. Ecology will continue to rely on FERC to incorporate 401 water quality certification conditions and to enforce those conditions. Ecology will maintain the right to enforce existing Orders or issue further

Orders and to enforce them if needed. If Ecology were to consider enforcement, before taking enforcement action our agency would consult and coordinate with FERC and others who may be affected.

The following language has been added, “The state also maintains its authority during the license period although Ecology generally relies on FERC’s authority and oversight for enforcement of conditions. Should the State consider enforcement, Ecology will first pursue coordination with the federal license conditions.”

Chelan PUD

178. Comment:

Pgs. 36, 39, 49, 50. The Revised Draft 401 Guidance Manual should be clarified to remove all suggestions that licensees are responsible for environmental impacts resulting from economic development and recreational activities that are “attracted” by the benefits of the project. At Ecology’s first workshop on the initial draft of the section 401 Guidance Manual, serious concerns were raised by Chelan PUD and others that the initial draft appeared to hold dam owners responsible for the environmental impacts of development that is “attracted” to the project. Apparently in response to those concerns, the Revised Draft 401 Guidance Manual now states, on page 51, that: “Activities that should be addressed in plans incorporated into 401 certifications are those that affect water quality and are within the scope of the applicant’s control.”

Chelan PUD appreciates this clarifying statement. Elsewhere in the Revised Draft 401 Guidance Manual, however, other statements remain that suggest to the contrary, creating confusion. For example, it states that:

- Turbidity can be caused by "watershed development stimulated by the dam and reservoir." (p. 30),
- nutrient problems are partly the responsibility of the reservoir attracting new sources of nutrients (p. 36),
- "Vehicle and boat use in the watershed is likely to increase due to recreation and development encouraged by the reservoir behind the dam." (p. 39),
- sources of toxics increase "due to the projects influence. (p. 40),
- "Dam construction and operation increase the potential for adverse water quality impacts by making shoreline areas more attractive for development.” (p. 49)
- “Because a change in dam operation can promote development of shorelines, it creates a financial and resource burden for local and state governments in conducting permitting and compliance programs, resulting in intensified pressure on the resource from a water quality standpoint," (p. 49), and
- "When hydropower projects produce inexpensive power, consistently available water, a predictable water elevation, and improved public access, then certain types of activities increase more rapidly than they would otherwise." (p. 50).

To be consistent with the above-quoted statement that applicants are only responsible for activities within their control, these statements should be revised or deleted.

In doing so, it is important to distinguish between residential and agricultural development, on the one hand, and recreation facilities constructed and maintained by the licensee pursuant to its FERC license, on the other. As to residential and agricultural development in the vicinity of the Project, Chelan PUD is aware of no legal basis for holding a licensee responsible. This makes sense for at least two reasons. First, the relationship between a hydroelectric project and residential and agricultural development in the vicinity is highly speculative. This is particularly true where the project has no irrigation features.

Second, land use is the responsibility of local government, not the licensee. Pursuant to state law and local ordinances, local governments decide whether, and where, residential and agricultural development is to occur, presumably after considering any fish and wildlife impacts, as required by both state and federal law. The licensee has no role in, or control over, that process. Consequently, the licensee is not responsible for any residential and agricultural development that has occurred in the vicinity of the hydroelectric project.

As to recreational facilities constructed and operated by the licensee, the analysis is different. At the time recreational facilities are considered for inclusion in a FERC license, there is consultation with fish and wildlife agencies regarding potential impacts on fish and wildlife. For example, the initial plans for Chelan PUD's Confluence Park were revised in response to concerns expressed by fish and wildlife agencies. Therefore, any fish and wildlife impacts have already been addressed, and there are only very limited situations in which any further actions by the licensee would be needed. An example would be where an endangered species is discovered within a recreational facility, such as a park.

Response:
The first draft of the FERC Hydropower Guidance was significantly modified to respond to similar concerns by utilities that they not be held responsible for activities which are not within their control. This is clearly stated in the next version, the draft final guidance upon which your present comments are based. The examples you have given are all useful to evaluate both what the applicant's impact is and what portion of the responsibility is under the control of the applicant.

We agree with you that the applicant does not bear all the responsibility for the examples you raise. Most often, the applicant will bear a small and sometimes perhaps insignificant portion of the responsibility. The guidance suggests that Ecology will need the information about what portion of the responsibility lies with the applicant. In other words, what portion is within the applicant's control? For instance, water quality considerations such as turbidity, nutrients, sources of toxics, fecal coliform should be taken into account when planning FERC license-related projects such as recreational facilities, land trades, recreational use, and other land-use decisions within control of the applicant.

Chelan PUD

179. Comment:
4. Ecology should provide the applicant and the public with an opportunity to comment on a draft certification. In addition to the opportunity that Ecology currently provides for comment on a Section 401 certification application, a similar opportunity should be provided regarding a draft certification. Such an opportunity would allow the applicant and others to identify for Ecology any concerns, factual errors or omissions, or potential legal shortcomings with the draft certification. Among other things, this relatively simple additional step would very likely reduce the number and scope of appeals to the PCHB.

Response:
Ecology is planning to provide opportunity for review of the draft conditions of the 401 water quality certifications.

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FERC
180. Comment:
As you know the 401 certification process has been a principal cause for delay in our licensing proceedings. This version of the document reflects many of the changes we recommended in May of this year. We appreciate your efforts to coordinate the certification requirements with Commission's licensing process.

Response:
Thank you.

FERC
181. Comment:
Pg 1. We recommend deleting the following sentence: "The FERC licensing process is designed more specifically to help FERC decide on other conditions (as opposed to water quality certification conditions) to include in the license." The licensing process is designed to ensure that the Commission has the information it needs to determine if issuing a license with certain conditions is the best comprehensive use of the waterway, and if so, what conditions to include in the license. This includes the water quality conditions. While 401 certification conditions must be included in any license issued, the 401 conditions are factored into the Commission's decision.

On July 23, 2003, the Commission modified it regulations for when a 401 certification must be submitted. Irrespective of the licensing process followed (traditional, alternative, or integrated), an applicant is now required to submit its request for a 401 certification no later than 60 days after the Commission issues its ready-for-environmental analysis (REA) notice.

Response:
The sentence was deleted and replaced with, "The licensing process is designed to ensure that the Commission has the information it needs to determine if issuing a license with

certain conditions is the best comprehensive use of the waterway, and if so, what conditions to include in the license."

FERC
182. Comment:
Pg. 7. Commission approval to use the alternative licensing process is required now and will be in the future. We recommend rephrasing the first sentence as follows:

Until July 23, 2005, an applicant can choose to use either the integrated or the traditional licensing process, or, with Commission approval, the alternative licensing process.
Response:
The sentence has been rephrased to read, "FERC has three licensing processes, the Integrated Licensing Process (ILP), the Alternative Licensing Process (ALP), and the Traditional Licensing Process (TLP). After July 23, 2005, the ILP will be the default."

FERC
183. Comment:
Pg. 9. Delete 4O1 water quality" from the first sentence; it is confusing arid redundant with water quality certification conditions.

Response:
The change has been made.

FERC
184. Comment:
Pg. 9. You state that there is a high probability that Ecology will not be able to issue a certification during the first year of the request because of the size and complexity of hydropower projects and the need to wait for the Commission to complete its National Environmental Policy Act (NEPA) analysis. The goal of the integrated licensing process (ILP) is to integrate stakeholder's process needs, particularly the 401 certification, into the Commission's licensing process to ensure timely licensing decisions. We encourage Ecology to work with applicants and Commission staff during the process plan and study plan development to find ways to accomplish your certification in a timelier manner. For example, if studies are adequate to determine if the project will meet water quality standards, could Ecology issue its certification based on the draft NEPA analysis or even without a NEPA analysis, particularly if a State Environmental Policy Act (SEPA) review is not required? Working closely with the applicant and Commission staff during pre-filing should provide the necessary information to issue the certification. Regardless, we note that it is Ecology's intention to follow the proceeding closely such that it would be poised to issue its certification soon after the Commission issues its final NEPA analysis. We appreciate your commitment to issuing timely certifications.

Response:
You have correctly noted that Ecology's intends to follow the proceeding closely so that we will be poised to issue its certification soon after the Commission issues its final NEPA analysis.

A SEPA analysis is not required by the state in part because we rely on the NEPA document, thus avoiding unnecessary duplication of effort.

FERC

185. Comment:

Pg. 11. You state that when a license owner provides Ecology with a copy of the Notice of Intent (NOI) and either a Pre-application Document (PAD) or Initial Information Package, the Water Quality Program's 401 Hydropower Certification Coordinator will notify the appropriate Ecology regional director that the licensing proceeding is underway (or about to begin, whichever the case may be). Starting July 23, *2005*, all applicants will file a PAD with their NOI, regardless of the process they may wish to follow. We encourage Ecology to be fully engaged in the proceeding from this point forward.

Response:

The best approach is for Ecology to participate in the appropriate negotiations from the beginning; and Ecology will, if possible. While participation in the fishery and other resource negotiations would assure everyone involved that limiting water quality concerns would be part of the deliberations, Ecology may not participate in all of these meetings. More often, Ecology would consider participating in targeted meetings that address water quality and flow issues. Ecology would encourage applicants to form issue groups to include both water quality and flow issues in one meeting. The decision to participate is made by the regional manager who will sign the water quality certification. This is usually, but not always, the water quality regional section manager.

Ecology's flow chart has been modified to show key corresponding points in the ILP process. An additional appendix has been added to show the FERC process so the reader will be able to use the flow chart to understand Ecology's process and compare and coordinate with the FERC processes.

FERC

186. Comment:

Pg. 11. You encourage applicants to develop a draft initial work plan in consultation with Ecology for water quality certification issues that includes: Ecology's timing needs for information and studies, type and quality of information expected, scope of studies, and reassessment opportunities of the data gathering strategy. These items are exactly what we hoped to see incorporated in the process plan. We encourage Ecology to come to scoping prepared to discuss these very issues. Having discussions with the applicant about the timing of the 401 certification request and issuance prior to filing the NOI may assist stakeholders in finalizing the process plan required in the Commission's ILP.

Response:

We agree the ILP process more closely fits Ecology's needs for obtaining water quality certifications. We have included the important corresponding FERC ILP process steps in the 401 process chart in Chapter 2.

FERC
187. Comment:
Pg. 12. The first paragraph should be deleted because it is confusing and is not necessary to your point, which is to encourage consultation with Ecology prior to filing the NOI and PAD.

Response:
This paragraph has been deleted.

FERC
188. Comment:
Submitting the 401 certification application and supporting documents.

Pg. 13. An applicant is required to submit its request for water quality certification no later than 60 days after the Commission' s issuance of its REA notice, not the notice of acceptance of the application. While under the ILP we expect to issue both notices concurrently, we recommend for consistency among processes that you refer to the Ready for Environmental Analysis (REA) notice.

Response:
A change has been made so the sentence reads, "During the integrated licensing process, the applicant must file a water quality certification within 60 days after the Commission's issuance of its REA notice."

FERC
189. Comment:
Pg. 13. In the first paragraph, you encourage an applicant to submit "informal draft" documents at least one and one half years prior to this and six months prior to submittal of the 401-certification request. It would be helpful to define what documents you expect to be filed. What does "this" refer to—the REA notice, the tendering notice, or the filing of the application? As noted above, the REA notice and the acceptance notice are likely to be issued concurrently. A review of information needed to obtain a water quality certification at the intervals you recommend (once one and half years prior and again six months prior to the actual request for certification) may fit well with the timing of revised study plan meetings and development of the applicant's preliminary licensing proposal. Ecology may want to explore including these milestones in the process plan.

Response:
Ecology will explore using the FERC ILP process to efficiently obtain information used in making water quality certification decisions. A sentence has been changed to read, "Ecology encourages the applicant to let us review and comment on study and other information that will be needed for Ecology to make a 401 water quality certification decision." Another sentence has been added to read, "This timing of information needed to obtain a water quality certification may fit well with the timing of revised study plan meetings and development of the applicant's preliminary licensing proposal."

FERC
190. Comment:
Pg. 16. You state that Ecology will develop draft certification conditions after an application is received. How long after the application is received would you provide these draft conditions? Providing draft conditions within 60 days of the Commission's REA notice would permit a more thorough NEPA analysis.

Response:
Ecology is planning to provide opportunity for review of the draft conditions of the 401 water quality certifications.

We understand that an earlier review of draft conditions would be useful and provide for certain efficiencies. Since the 401 water quality certification application is not due to Ecology until 60 days after the Commission's REA notice, this may present some logistical difficulty for Ecology. This is partly because Ecology usually relies on information found in the NEPA document to write 401 water quality certification conditions and the NEPA document is not finished for over a year after the REA notice has been issued.

We are still working on the timing of review of draft conditions, have some further internal discussions, and will discuss this timing issue with you.

FERC
191. Comment:
Pg. 21. You state that for each water quality parameter to be studied, a monitoring season should be identified and then a reasonable amount of time set aside by the applicant prior to monitoring for development and review of the quality assurance plan. The time allotted should allow for several rounds of review which may include meetings and third party review. It would be helpful to define how much time might be expected by Ecology. This information should also be discussed at scoping and study plan meetings and coordinated with the FERC licensing process.

Response:
We think that the general language in the guidance is sufficient because each project is so different. This information is better defined, as you suggest, during the scoping and study planning meetings. The following language has been added, "These concerns should also be discussed at scoping and study plan meetings when possible in coordination with the FERC licensing process."

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Kalispel Tribe
192. Comment:

I understand that the Department of Ecology is considering scheduling and development of Total Maximum Daily Loads (TMDLs) for the state's waters. TMDL development is obviously a labor-intensive endeavor and efficiency is essential.

As you know, the US Environmental Protection Agency is coordinating a temperature and total dissolved gas Total Maximum Daily Load (TMDL) for the Columbia and Snake Rivers. A memorandum of agreement between EPA and the states of Oregon, Idaho, and Washington calls for coordination of TMDL implementation plans with certifications issued under Clean Water Act Section 401 for Federal Energy Regulatory Commission licensed hydroelectric projects. I understand the Department of Ecology is reviewing development schedules for TMDLs in Washington State and I encourage you to consider statewide coordination of TMDLs and Section 401 certifications for all hydroelectric projects.
Two major tributaries to the Columbia, the Pend Oreille and the Spokane, are not part of the Columbia/Snake TMDL. These rivers experience high temperatures and total dissolved gas levels, as do the Snake and Columbia Rivers. Dams produce total dissolved gas and contribute to elevated temperatures. Six hydroelectric projects on the Spokane and Pend Oreille Rivers are seeking new operating licenses in the next ten years. This is an opportunity to coordinate TMDLs for temperature and total dissolved gas with potential conditions if 401 certifications are issued.

There exists an opportunity to maximize use of human resources by coordinating temperature and total dissolved gas TMDLs with potential conditions of any Section 401 certifications issued for hydroelectric projects on the Spokane and Pend Oreille Rivers. I encourage you to consider this opportunity when scheduling TMDLs

Response:
We think that the language in the draft guidance sufficiently shows how Ecology will coordinate between TMDLs and 401 water quality certifications.

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Tacoma Power
193. Comment:
Pg. i. The Guidance should clearly state how it is to be used by Ecology and the limitations inherent in a guidance document.

While the opening paragraph of the Guidance describes how to use the document, we believe it needs to be clearly stated that the Guidance does not have any independent regulatory authority and it does not establish new environmental regulatory requirements or standards. *See page i.* It is important that agency personnel working in the field understand the limitations of the Guidance – that it is used to assist in the understanding of Ecology's issuance of a 401 certification, but that the description of information required by Ecology, or possible solutions to correct water quality problems, are not required to be included in a 401 certification

Response:
We agree, this is guidance, not a rule. This is clearly stated in the first paragraph of the introduction.

Tacoma Power
194. Comment:
Pg. 3. The Guidance should state what Ecology views as being "other applicable requirements of state law" for purposes of a 401 certification.

Ecology is authorized to issue a 401 certification stating that a proposed activity will meet applicable state water quality standards and "other applicable requirements of state law." *Chapter 1, page 3.* The Guidance should state what Ecology considers to be "other applicable requirements of state law." This will allow the applicant a reasonable basis to determine the scope of information and other needs of Ecology.

Response:
The guidance has been changed to read, "…the CWA requires that applicants for a federal permit or license that involves any discharge to the nation's waters request a certification (401 water quality certification) from the state where the discharge originates that the proposed activity will meet applicable state water quality standards and other *appropriate* requirements of state law."

Ecology views the term "appropriate" as referring to laws and rules directly supporting water quality standards and equally or more stringent than the standards. For example, one rule that may be appropriate to include in a certification is the state adopted 2003 water quality standards. These standards are not yet federally approved but have been adopted into state law. Another may be drinking water standards for reservoirs that also serve as drinking water supply.

Tacoma Power
195. Comment:
Pg. 12. There is no need for either Ecology or the project applicant to create a formal public record prior to the submission by the project applicant of a 401 certification application to Ecology.

While it was suggested at the Guidance workshop that Ecology create a formal record before the project applicant files an application for a 401 certification, we do not believe that this is necessary. As described in the Guidance, Ecology will work with the project applicant prior to the filing of an application; however, the creation of an initial workplan need not be part of a formal process. *Chapter 2, page 12.* To require a formal process at the early informal stage will erect an additional and unnecessary administrative burden, impede frank discussion between the project applicant and Ecology, and hinder the efficient development of evolving work plans. As described in the Guidance, the 401 certification process provides several opportunities for formal public input and involvement.
Response:

Preliminary negotiations and other FERC processes can include all interested parties. When Ecology participates in these forums, the public record would be the same as FERC's. When the certification process differs from the FERC process, Ecology will strive to have meetings open to interested parties. When Ecology meets solely with an applicant or only with a tribe, all records are made available as public documents, through public disclosure requests.

Tacoma Power
196. Comment:
Pg. 9. The Guidance should provide more insight into how Ecology will avoid having 401 certification conditions conflict with a project's settlement agreement, specifically if Ecology is a party to the settlement agreement**.**

In the Guidance, Ecology states that even if it participates in a settlement, the agency reserves the authority to order additional or modified conditions in the 401 certification. *Chapter 2, page 9.* There is an understandable concern that Ecology not upset the delicate balance of a settlement agreement by imposing additional or conflicting conditions in a 401 certification subsequent to agreeing to the terms of a settlement agreement. This is especially important if Ecology has participated in, and signed onto, a settlement agreement. We would request a clarification of the circumstances in which Ecology would impose additional conditions from those contained in a settlement agreement.

Response:
The best approach is for Ecology to participate in the appropriate negotiations from the beginning; and Ecology will, if possible. While participation in the fishery and other resource negotiations would assure everyone involved that limiting water quality concerns would be part of the deliberations, Ecology may not participate in all of these meetings. More often, Ecology would consider participating in targeted meeting that address water quality and flow issues. Ecology would encourage applicants to form issue groups to include both water quality and flow issues in one meeting. The decision to participate is made by the regional manager who will sign the water quality certification. This is usually, but not always, the water quality regional section manager.

Ecology will strive for consistency between federal and state requirements and timelines. There are at least two statutory bases for active implementation of the water quality standards in respect to federally licensed dams: the conditions found in the FERC license and Washington's statute, 90.48, the Water Pollution Control Act. The state issues water quality certifications as state administrative orders. Ecology will continue to rely on FERC to incorporate 401 water quality certification conditions and to enforce those conditions. Ecology will maintain the right to enforce existing Orders or issue further Orders and to enforce them if needed. If Ecology were to consider enforcement, before taking enforcement action our agency would consult and coordinate with FERC and others who may be affected.

The following language has been added, "The state also maintains its authority during the license period although Ecology generally relies on FERC's authority and oversight for enforcement of conditions. Should the State consider enforcement, Ecology will first pursue coordination with the federal license conditions."

We have also added language to Chapter 2, "Ecology and the Washington Department of Fish and Wildlife will work together after the guidance is finished to resolve procedural conflicts concerning negotiated agreements and 401 water quality certification conditions."

Tacoma Power
197. Comment:
Pg 17. The Guidance document should state how Ecology will determine what conditions should be imposed through the 401 certification, and a process to ensure that those conditions are directly related to water quality.

Ecology has noted that specific requirements for water quality parameters may be included in the 401 certification. *Chapter 2, page 17.* The imposition of conditions is generally related to either fixing known water quality problems that cause the facility to exceed water quality standards or preventative measures to ensure water quality standards will not be violated in the future. It is a concern that conditions may be included in a 401 certification that are not directly related to water quality issues. We would like Ecology to iterate the method by which conditions will be created, and provide for a review by the agency and project applicant in which Ecology will show the direct link between a required condition and water quality standards. Because the conditions set forth in the 401 certification must be included in the project license by FERC, it is important that any required conditions be logically connected to either fixing known water quality problems or preventive measures to ensure continued attainment of water quality standards.

Response:
We agree that "it is important that any required conditions be logically [and appropriately] connected to either fixing known water quality problems or preventive measures to ensure continued attainment of water quality standards." It is beyond the authority of Ecology to require conditions that do not relate to water quality.

The Clean Water Act, in Section 401 (d), does state that a certification may use any appropriate state law, not just limited to water quality standards or other state authorities under the CWA. Numeric and beneficial uses will continue to be protected. The State maintains the authority to interpret effects on water quality broadly, i.e., to use biological measures to determine affects of water quality on uses.

In practice, Ecology deliberates appropriate conditions through consultation with utilities and others when writing water quality certifications. Past conditions to maintain beneficial uses such as fish habitat through flow are products of these discussions and always will be a part of Ecology's evaluation of water quality standards achievement.

Tacoma Power

198. Comment:

Ecology should make a draft version of its 401 certification conditions available to FERC prior to the agency's completion of the Draft Environmental Impact Statement (DEIS). We believe that Ecology should make FERC aware of Ecology's proposed 401 certificate conditions prior to FERC's completion of its NEPA analysis. This would allow for the proposed conditions to be included in the FERC's DEIS, and provide a more complete environmental review of the project. We are not asking Ecology to institute a public notice and comment of the draft conditions, but rather sharing a draft of the proposed conditions with the project applicant and the federal agency. By sharing the proposed conditions with the FERC and having the proposed conditions included in the environmental review, Ecology will receive additional information which can only help to create more defensible water quality certifications.

Response:

Ecology is planning to provide opportunity for review of the draft conditions of the 401 water quality certifications.

Tacoma Power

199. Comment:

Pg. 20. The Guidance should clarify that the Existing and Designated Use Study does not require a pre-project baseline to measure impacts. The Guidance currently states that the project applicant should provide Ecology with a study that identifies the existing and designated beneficial uses, the historic impacts of the project on them, and the anticipated further impacts of the proposal on the uses. The study should examine "uses that do not currently exist, but also uses that would be available without the project impacts." *Chapter 3, page 20.* Requiring the project applicant to study uses available without the project impacts requires using a pre-project baseline to measure impacts under the Clean Water Act. We believe this is an incorrect application of the Act. It is the FERC's well established and judicially-approved policy that the baseline for environmental analysis is existing conditions. Any study required by Ecology for the 401 certification should use existing conditions for the baseline and not require a project applicant to attempt to re-create a hypothetical pre-project environment.

Response:

The intent in the Clean Water Act to protect a "balanced, indigenous population" is an interim goal. The long-term goal of the CWA is to remove all sources of degradation. Thus restoration is the ultimate goal of the Act. State and federal water quality regulations require that all existing fishable-swimmable uses and all attainable designated uses be protected [40 CFR 131.10]. The guidance directs the identification and protection of existing and attainable designated uses. Uses that have not existed since 1975 (which set the bar for defining existing uses) and uses that do not exist and not designated in the water quality standard need not be identified for protection. For example: dam operations may have placed all reservoir water during the life of the old license through pipes to turbines situated miles downstream, thus dewatering salmon rearing and spawning habitat. If the dewatered river is designated for salmon rearing and

spawning, the utility would be expected to determine whether or not the designated beneficial use could be protected by providing sufficient flows. Another example: Fifty years ago, when a dam was built, reservoir conditions heated the water and changed the flow to the point where salmon could not spawn. The reservoir is not designated for salmon spawning. The utility would not be expected to meet salmon spawning temperature criteria nor meet the flow requirements necessary for salmon to spawn since in this case the use was lost prior to 1975 (not an existing use) and is not a designated use in the state standards. Regarding the court decision on the Snake River dams, the court also said that the Corps needs to pursue everything they can do to improve water quality and try to meet the water quality standards shy of bypassing the federal dams.

Tacoma Power
200. Comment:
Pgs. 3, 20 & 24. The Guidance should clarify the baseline condition used to determine the highest attainable use for a water body. Guidance implies that structural changes (such as dams) may cause changes to a water body to the extent that water quality criteria may not be attainable. In such cases, the highest attainable use may become an alternative target for that water body. *Chapter 1, page, paragraph 3.* The highest attainable use is defined as the highest "future" use that may be achieved by implementing feasible improvements, which would be determined by a use attainability analysis (UAA). Many hydropower reservoirs will not be able to meet the dissolved oxygen (DO) and temperature criteria at all times and will likely have to conduct a UAA to determine the highest attainable use. The Guidance suggests that past or "historic" conditions may be the benchmark for the highest attainable use (*see* statement at page 20 that the "...application should provide Ecology with a study that identifies...historic impacts of the project"); however, the Guidance further states that analysis should determine "uses that would be available without the project." The Guidance should make clear what should be used as baseline conditions to determine the benchmark for the highest attainable use criteria; pre-project or pre-human intervention.

Response:
The guidance suggests that historic conditions are useful as information to make water quality certification decisions, not to be used as benchmarks or compliance targets. The reason is that historic information lends credibility to an analysis of what the potential uses are. A water quality attainment plan would be developed as part of the certification process to use to identify the highest attainable water quality that is reasonable and feasible in the reservoir.

Downstream water has to meet the criteria assigned in the water quality standards, and if those criteria are not met at the time of certification they would also be included in a water quality attainment plan. The use attainability analysis guidance presently under development will include more information on how existing and attainable uses would be identified.

Tacoma Power
201. Comment:

Pg. 20. The Guidance should define "feasible" in the context of achieving the highest attainable use. The Guidance should define “reasonable and feasible” in regards to changes required to hydropower projects as part of the compliance schedule for dams. We are concerned that references in the Guidance suggest that Ecology may consider dam decommissioning to be a “feasible” change. For example, the Guidance makes reference to providing an analysis to determine “uses that would be available without the project.” *Chapter 3, page 20.* This suggests that Ecology may consider decommissioning as an alternative, since Ecology requires the project applicant to view the water body without the project in place. Does “feasible” include project decommissioning, and if so, would the highest attainable use for a water body be based on that decommissioning? If the goal is to determine the highest attainable use while continuing to operate a project then there would be little value to determining a project's impact on historic conditions or to determine the highest attainable use under a future without-the-project scenario.

Response:
The language on page 20 refers to establishing baseline conditions to compare to the ability of the project to meet the existing and beneficial uses reflected in the water quality standards.

The terms, “reasonable and feasible” that are part of Ecology’s 2003 water quality standards *Compliance Schedules for Dams*, are somewhat ambiguous. Ecology is defining these terms partially through developing Use Attainability guidance that will contain an economic analysis guidance portion. Ecology is currently working with EPA Region 10 to specifically address this issue.

Any decision to remove a major dam would be made by far broader group decision makers than Ecology alone. However, Ecology has to consider dam removal as a next-step were the benefits of dam removal to achieve good water quality outweigh the economic and social benefits of the dam in place. Electric production can be considered a social and economic benefit.

Tacoma Power
202. Comment:
Pg. 23. The Guidance should state how Ecology will balance competing beneficial uses for a water body without violating the antidegradation policy.

The Guidance fails to adequately describe how Ecology will determine which conflicting beneficial uses will be chosen for a water body. There is the possibility of competing uses (i.e. flood control, habitat, recreation) as well as competition within a use itself (i.e., in a water body listed for recreational boating the required flows may differ for drift boating as opposed to kayaking as opposed to whitewater rafting). A switch from flows for drift boating to flows which support kayaking may be argued to violate the antidegradation policy as a “use” is eliminated. However, according to EPA’s *Water Quality Standards Handbook: Second Edition* (1994), if a state uses a broad classification (such a “boating”), then it is a state determination whether to allow changes

in the type of boating activity that would occur on a specific water body so long as the basic use classification is met. Ecology should make clear in the Guidance that it allows a change in use classification so long as the resulting water quality allows the base use (i.e. boating) to be met. This will allow the state and project applicant to change activities within a specific use category while maintaining that use, thus meeting the goals of the Clean Water Act.

Response:
Numeric water quality criteria are made for the most sensitive use. For example, bull trout require colder water than other species. If they are present, the temperature criteria are meant to protect them.

The examples you provide present flow, a narrative criteria, as the example. When Ecology weighs beneficial uses (as described in RCW 90.48) that are competing, protection of the most sensitive beneficial use is the goal. Usually this will be base flows for habitat to maintain fishable populations.

Flows to take into account competing uses within a use—such as kayaks versus motor boats—have been historically set by Ecology in close cooperation with WDF&W, the Interagency for Outdoor Recreations and in consultation with the interested public and the utility—during the FERC licensing process.

Tacoma Power
203. Comment:
Pg. 23. The Guidance must provide with greater specificity when narrative criteria will be invoked. We are concerned that Ecology has indicated that narrative criteria may be invoked, even if the numeric criteria standards have been obtained. *See Chapter 3, page 23.* Ecology should provide additional guidance on when narrative criteria may be implemented, in order to avoid an arbitrary imposition of the standard. Narrative criteria, which rely on analysis of impacts to uses, are by nature subjective. As such, there is the potential for abuse when agency personnel are not provided with sufficient guidance. To avoid any confusion, we would ask that Ecology clearly state when a narrative criteria would overrule a numeric criteria (whose standards were being obtained) and the manner by which agency personnel would judge if a narrative criteria was being met.

Response:
The physical and biological characteristics found at each project vary so much that we are relying on staff in consultation with the guidance and with appropriate parties involved in the licensing process, for direction. The guidance does give direction on narrative standards in several areas. In the beginning of Chapter 3, it describes generally when to pursue narrative standards. In Chapter 1 and throughout Chapter 3, it states that the project owners will not be responsible for activities beyond their control. In Chapter 3 under the different parameters, it gives some direction for when narrative standards might be appropriate. It underscores the appropriateness of using flow as a narrative standard for protecting designated uses. Flow conditions will be found in all water quality certifications for hydropower facilities. A defined protocol is used to set flows.

Tacoma Power

204. Comment:

Ecology should clarify temperature criteria for Char. The numeric criterion for areas classified as char (i.e. bull trout) waters is 12°C. However, it is widely reported in the scientific literature that bull trout spawning occurs below approximately 10°C. In addition, bull trout migrate and forage in habitats covering a wide range of temperatures; over 15°C in some cases (Goetz et al. 2004). The temperature criteria vary based on use for salmon and other trout, but not for char. It seems appropriate to have a similar strategy for char (i.e. bull trout) as well. For example, habitats used for spawning should fall below 10°C, core rearing below 12°C, and migration below 15°C.

Goetz, F., E. Jeanes, and E. Beamer. June 2004. Preliminary draft - bull trout in the near shore. U.S. Army Corps of Engineers, Seattle District.

Response:

It is beyond the scope of the guidance to revise water quality rules. The state water quality standards are regularly updated, ideally, once every three years. The latest revised water quality standards were sent to EPA for approval and adopted into state regulation in July, 2003. EPA has not yet adopted these criteria, in part because they and the federal fish agencies have been considering the adequacy of the core temperature criteria.

Tacoma Power

205. Comment:

Pgs. 24, 28 & 33. The Guidance should account for reservoir stratification. The Guidance makes no mention of how temperature or any other criteria should be applied to stratified reservoirs and lakes. Many reservoirs and natural lakes become thermally stratified, where warmer waters that exceed temperature criteria may occupy the first few feet of the surface and colder waters that meet water temperature criteria may be present below the thin, warmer layer. For a lake system the natural conditions could be assessed to determine the highest attainable use, which may include stratification. However, for a reservoir natural conditions do not apply, per the Guidance, and the highest attainable use is the criteria that would apply. This could inappropriately lead to project measures that are geared toward eliminating seasonal stratification to meet DO and water temperature criteria through the entire reservoir depth profile, when other surrounding lakes in the region are naturally seasonally stratified. In cases such as this, natural lakes stratification may provide a benchmark to manage reservoirs.

Response:

Language has been added in chapter 3 under both dissolved oxygen and temperature to read, “Ecology will have to consider the combined effects of reservoir management of dissolved oxygen and temperature and benefits and tradeoffs between managing for one or the other."

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206. Comment:
Pg 22. The Guidance needs to clearly state who will be responsible for determining upstream impacts (not caused by project operations); how these impacts may be apportioned to various activities that degrade water quality standards; and how upstream impacts would be factored into the UAA and the determination of the highest attainable use/highest attainable water quality criteria.

The Guidance suggests certification should focus on meeting the water quality criteria downstream of a dam, and achieving the highest attainable water quality condition within the reservoir upstream of the dam. Upstream impacts, such as forest practices, can contribute to substantial water temperature impairment downstream within a reservoir or stream system. Determining the highest attainable water quality conditions through the UAA might result in a project being held responsible for temperature impacts actually caused by upstream impacts. We believe it is not Ecology's intent that hydropower projects compensate for impacts caused from other sources, as the Guidance states "applicants will not be expected to determine impacts from activities beyond their control." *Chapter 2, page 22*. Therefore, we believe it is important that Ecology clarify how effects of multiple basin activities will be correctly identified and factored into the 401 certification decision. This situation must also be addressed in the context of an UAA being conducted for the water body.

Response:
The last sentence of chapter 2, "Applicants will not be expected to determine impacts from activities beyond their control." needs some clarification. New language has been added to read, "However, applicants will be expected to determine their contribution to the pollution." This may be involvement with a TMDL led by Ecology or funding a TMDL-like study. The applicant could perform a UAA study to add to the understanding of who is responsible for each pollution source. This exercise should usually be done after ten years of an aggressive effort to achieve compliance.

Determining who is responsible for a given parameter is often complex. This is why a TMDL is best done before a water quality certification decision is made. The TMDL provides for public input. We think that the guidance provides sufficient information for utilities to plan ahead for involvement with TMDLs. We understand that the timing of TMDLs can conflict with timing of FERC licensing for specific projects, especially those licenses that are currently about to expire.

You are correct that Ecology does not hold the applicant responsible for water quality problems not caused by the project. An addition to the guidance has been made so this is clear (Pg. 3, 3rd paragraph, after the 3rd sentence, "These conditions require the applicant to take steps to attain and maintain water quality standards for their project's impacts."

The UAA guidance is currently under development and will, when finished, be reflected into this guidance. Ecology is providing opportunities for public input. We suggest that you remain involved with this. More information about Washington UAA guidance can be found on our website: http://www.ecy.wa.gov/programs/wq/swqs/uaa.html.

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207. Comment:

Pg i. As we understand, this Guidance will be continually updated by Ecology. We would encourage you to ask for stakeholder review and input as these additional changes are made.

Response:

Ecology will seek input from parties that would be affected by changes to the guidance. This could happen in several ways:

1. Rulemaking and other guidance development include formal public involvement opportunities. In these cases, we will update the guidance usually without additional consultation.
2. Other significant changes will be made after providing the public opportunity to comment.
3. Ecology may decide to select a small diverse group to provide recommendations to Ecology on complex issues.
4. Ecology may decide to informally call and meet with a selection of potentially affected parties.